American Druggist and Pharmaceutical Record.

A JOURNAL OF PRACTICAL PHARMACY.

AMERICAN DRUGGIST PUBLISHING COMPANY.

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A. R. ELLIOTT, PRESIDENT.

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PUBLISHER'S NOTICE.

WE would remind advertisers of the importance of making early application for space in our special issues. The extra large size of these issues compels us to close our advertising forms a few days in advance of the usual date, but advertisements for ordinary space can be received up to within three days of the date of publication.

NOTICE the label pasted on the wrapper of your paper. The date shows to when your subscription is paid. If not correct please notify us.

IN a carefully written article on the influence which the discovery of America has had on Materia Medica, an esteemed English contemporary has followed the bad example set by many of our native wags and commented in facetious terms on the peculiarities of the Columbian postage stamps. We print the article in its entirety on another page.

THE Brunswick (Germany) Society of Hygiene has examined sixty samples of so-called medicinal Tokay wines "guaranteed pure" or "recommended by physicians," and found that fifty of these samples were not pure wines, but manufactured stuff, possessing no medicinal value, and in some cases positively injurious.

PRIZE NEWS LETTERS.

THERE are many men in the ranks of pharmacy who have both the ability and inclination to make good news gatherers, who are journalists by instinct, for true journalists, like poets, are born—but unlike poets they must needs, be made also—and who merely lack incentive and opportunity to develop their latent talent.

This incentive and this opportunity the American Druggist Publishing Co. propose to supply in the shape of prizes amounting to **$25.00.**

This amount is to be awarded for the best news letters concerning the retail drug trade, consisting of personal items, notices of stores, personal anecdotes, or in fact of any news matter that would be of general interest to the retail drug trade. In making the award, the composition and arrangement of the letters will be taken into consideration as well as their intrinsic literary and journalistic worth. This amount will be divided into four prizes as follows:

First Prize,	Second Prize,
$10.00.	**$7.50.**
Third Prize, Books to the value of	**Fourth Prize,** Books to the value of
$5.00.	**$2.50.**

Any competitor may send in several letters if he choose to do so. The award will be made so that the result of the contest can be announced in the issue for August 24.

THE PHARMACEUTICAL CONGRESS.

FROM even a cursory examination of the official announcement of the seventh International Pharmaceutical Congress, which we print on another page in this issue, it can reasonably be inferred that the proceedings at the forthcoming meeting are likely to cover a larger field than has heretofore been attempted at similar gatherings. The subjects proposed for papers, reports and discussions evince exceptional care in selection, and, if properly presented, should promote a wide participation on the part of pharmacists of every nationality, no matter where situated. That the Congress will be truly international, goes without saying. No effort has been spared to arouse and maintain interest in its success, and the indications already observed favor the assumption that the decision to hold the meeting in the center selected by the nation to commemorate Columbus's great discovery was most wise and fitting.

While foreign pharmacists are expected to enjoy a larger share in the deliberations of the Congress than citizens of the United States, we are confident that the

last mentioned will take every advantage of the opportunities there presented for contributing to the literature and general advancement of the pharmaceutical profession.

The development of pharmacy from its condition in the early part of the 15th century up to the present time, which is one of the subjects proposed for discussion, should appeal very strongly to the historians of pharmacy in all lands, and particularly to those who are citizens of a country which has contributed so much to the growth of the treasures of materia medica, and the investigations which are now in progress by pharmacognists and others with respect to the important bearing which the opening up of a new world has had on that department of pharmacy, which embraces a knowledge of the curative substances used in medicine will, we trust, serve to dispel the impressions prevalent in some quarters that American pharmacists have been idle in the matter of conducting research looking to the benefits which medicine has reaped from the great explorer's discovery.

THE ATTITUDE OF PHARMACISTS TOWARD LIQUOR LEGISLATION.

WE have from time to time referred to the attitude taken by the pharmacists of the country toward the liquor license question, and are gratified to note that the moderate but self-respecting stand which has been advocated in these columns as the proper one for the pharmacist to assume has received the support of an official endorsement at the hands of the Mississippi Pharmaceutical Association, as indicated in the following resolution passedat the recent meeting of that body :—

"*Resolved.* That a committee of three be appointed to obtain the signatures of all druggists in the State and their patrons to a petition asking the legislature to pass a law whereby regularly licensed pharmacists may upon the certificate and prescription of a regular physician, sell whiskey and brandy in quantities of not over four ounces, such prescriptions not to be refilled. That the druggist to be also required to keep a register of all quantities bought and sold, such register to be under such inspection as the legislature may direct, and a heavy penalty with revocation of such privileges to sell is to be the penalty of a transgression of the law."

In the reports of the meeting of the association printed in the daily papers, the passage of the above resolution was referred to in the following terms: "A committee of three was appointed to obtain the signatures of all the druggists in the State and their patrons to a petition asking the Legislature to pass a law giving pharmacists the right to sell whiskey and alcohol for medicinal and mechanical purposes."

D. E. Holt, the efficient secretary of the association, has taken occasion to set the association right before the public by writing to the local press on the subject. In this letter Secretary Holt mentions the above facts and then says :

The Mississippi Pharmaceutical Association is ready to pledge itself to promptly expel any member who would violate such a trust.

In prohibition towns where citizens do their duty and blind tigers cannot run, a real hardship is often done to the sick and suffering for want of alcoholic stimulants.

Some diseases, as for instance, typhoid fever and pneumonia, cannot be successfully treated without it, and an urgent demand is made upon the druggists where persons are accustomed to obtain their prescriptions and medicines, to get this much-needed medicine for them.

Do not let it be supposed for an instant that the Mississippi pharmacists wish to traduce their profession into a blind for the sale of liquors, and above all for alcohol.

By far the larger majority of them are prohibitionists, but the demand for whiskey in sickness and accident is a real one in the interests of humanity, and some way must be formulated to procure it in a legitimate manner, and yet restricted to such uses alone.

It is time that the public understood that pharmacists as a class are among the most honorable and law abiding citizens, and the action of Mr. Holt, in endeavoring to set the association right in the public eye is one to be most heartily commended.

THE SIGNIFICANCE OF GREETINGS.

HAVE you ever thought of the real significance of the phrase of greeting in almost universal use since history began? The "How d'ye do?" of the English, the "How goes it?" of the German, the "How do you carry yourself?" of the French—it means that good health takes precedence of all other temporal matters.

Pharmacists are but too prone to forget this as practically applied in their own individual cases. The close confinement, the long hours, the small worries, and the grave responsibilities of the pharmacist's life tend to make him old before his time.

You will lose your fresh vigorous interest in the outside world, and become narrowed physically and mentally, unless you are careful to avoid that dangerous rut of incessant work.

Follow the advice given by Mr. Kraemer in our issue for April 21. Mount a hobby—one that will take you out of doors. He said botany, Mr. Hostelly said the camera. Both are good. Your tastes and inclinations must be consulted. A recreation that is not interesting will fail of its object, whether it is botany, the bicycle, the camera, or better, all three; by all means have a hobby and—ride it. You will be better, broader, stronger—will live longer and more happily.

THE QUESTION OF EXHIBITS.

THE Pennsylvania Medical Society at its last annual meeting held at Williamsport, adopted a resolution of considerable interest to wholesale druggists, manufacturing chemists and proprietary medicine dealers. It was to the effect that during the sessions of the Association, the Exhibition Hall, in which is usually displayed an important exhibit of crude and rare drugs, together with proprietary preparations and surgical instruments, should be closed with the object of compelling the members in attendance to put in an appearance at the discussions while the Association is in session.

Inasmuch as it is very generally recognized that the exhibits are important educational features of the meetings, and are eagerly looked forward to by physicians who live in outlying districts and are consequently unable to familiarize themselves with the newer pharmaceutical preparations, except through the means presented at these meetings, it is much to be regretted that action of the kind reported has been taken.

The new rule cannot fail to work hardship against the members, and it is very probable that the first complaint against it will be heard from that quarter; looked at in any light it must appear a coercive measure.

CHICAGO METHODS.

THE admitted inefficiency and weakness of the Illinois Pharmacy Act, which permits persons having no qualifications beyond five years' drug store experience to practice pharmacy in the State in which the act is operative, is in marked contrast with the restrictive regulations under which the sale of alcohol and intoxicating liquors by druggists is controlled in its most representative city. Chicago in this latter respect will bear favorable comparison with many avowedly prohibition districts in which every restriction it understood to be thrown around the sale of intoxicating liquors. The simplicity of the Chicago method is one of its strong features and entitles it to a larger measure of support from pharmacists than it has hitherto been accorded. The city ordinance requires that a permit shall be taken out by all pharmacists who propose to engage in the sale of liquor and the permit specifies explicitly that no liquor can be drunk on the premises. It is much to be regretted that beneficial as this ordinance has proven, it is openly violated by many pharmacists who ought to be among the most sturdy upholders of its provisions. If stimulation to better things were possible, a good deal might be accomplished by more frequent and careful inspections of the liquor registers on the part of the police authorities. The officials who are charged with enforcement of the ordinance have not given much indication of moving in the matter; but we trust they will soon awaken to a better sense of their duty and rectify the abuses, which have had their growth in great measure from a lax enforcement of the law. That the general law regulating the practice of pharmacy is responsible for many of these minor evils is very clear.

Competition of the kind encouraged by the pharmacy laws of the Illinois order is in many instances more detrimental to the true interests of pharmacy than the curse of cutting, which after all has been said and done is much less of a curse than it is generally supposed to be. In endeavoring to fix the blame for the present plethoric condition of the ranks of pharmacy, somewiseacres hold that the colleges are most to blame. It is possible that a more absurd deduction might be arrived at, but we question it. Everyone who has given the subject the least attention must know where the real cause of blame lies, pharmaceutical writers have called attention to it early and late, and until the pharmacy act which permits the registration of all sorts of persons from porters and soda water boys up as competent pharmacists, has been amended, we will have a continuance of complaints regarding the sickly competition with which the phrmacists of Chicago are at present afflicted.

The demoralization of professional methods which follows competition of the kind referred to is deeper and more widespread than can be well estimated. As instancing one phaze of this it may be mentioned that many apparently respectable Chicago pharmacists now make a practice of soliciting patronage from the quacks who make a specialty of "treatment by letter." The nostrums dealt out to a gullible public by these imposters are usually compounded in the laboratories of city pharmacists, who lend whatever talent they may possess for the sake of a small gain to the furtherance of an iniquitous traffic. In this unholy greed of gain which appears to be characteristic of certain druggists in large cities, no means, it matters not how despicable, are overlooked that would be likely to add to their profits. Hundreds of druggists in the metropolitan centers of the United States daily stultify themselves in a manner that would be impossible to persons having less claim to polite treatment from an exacting public. The telephone nuisance is but one of many marked instances where druggists of a certain class sacrifice their self-respect to the demands of a few prospective patrons; all out of a foolish fear that some nearby competitor may secure a larger share of business than can be entertained by themselves with the employment of legitimate methods.

RETAILERS' ADVERTISING.

IN a letter from an enterprising Ohio pharmacist the conviction is expressed that advertising pays. As indicative of what he is doing in this direction he incloses copies of two advertisements which appeared some time since in a paper circulating in a town of less than 1,000 inhabitants. In one of these advertisements prominent attention is directed to several specialties of hisown manufacture. The other advertisement appeared during the holiday season, and suggested that an unusually complete line of holiday gifts were to be found at the establishment conducted by the advertiser. Dressing cases, photograph albums, smokers' sets, cuff and collar boxes, perfumery, scrap books, mirrors, books, stationery, lamps, purses, work baskets, fancy dishes, etc., were among the varied assortment thus offered for sale. The insertion of these and other advertisements has doubtless been the means of creating a considerable trade in the goods designated, as well as an incidental trade in the regular drug lines, judging from the unequivocal manner in which our correspondent alludes to the value of advertising.

BICYCLES AND EARLY RISING

THERE has recently appeared in the newspapers a statement that the assessors of Lowell, Massachusetts, and of Paris, France, have expessed their intention of placing a tax on bicycles. In behalf of thousands of riders, Col. Albert A. Pope submits a protest against the taxation of bicycles.

This protest will be supported by hundreds—yes thousands—of druggists and drug clerks for whom the bicycle affords practically their only outings and out-of-door exercise. If the adage about "early to rise" has any basis in fact the bicycle is a blessing, for it spurs to early rising people whom no other incentive could induce to forego

their matutinal naps, and an early morning spin through the park, or down country lanes fresh with morning dew will give the druggist a clearer head, a keener eye and steadier hand for the day's duties. By no means place a tax on the bicycle.

THE PROCEEDINGS OF THE A. P. A.

THE chief value of the volume of the proceedings of the American Pharmaceutical Association for the year, which recently reached us, is to be found in the carefully compiled Report on the Progress of Pharmacy which forms such a prominent feature of each issue. The Report presents in a most concise, comprehensive and complete form the more important results of the year's work in pharmacy, chemistry and materia medica; the entire field of pharmaceutical journalism being laid under contribution to swell its volume, abstracts of articles on related subjects as found in foreign periodicals are quite numerous. Nothing in fact of interest to pharmacists, even of passing value—from corn cures to chemical theory—has been neglected. Viewed with reference to this particular feature, the work is a splendid example of orderly selection and arrangement.

To members of the A. P. A., these remarks may appear supererogatory, but it should be remembered that there are still a very large number of qualified pharmacists without the fold who have no knowledge of the publication of the Proceedings.

Its value as a permanent record of the transactions of the association is also great and will, we feel sure, be recognized by future historians of pharmacy when the men who are now identified with the association have passed away.

THE FINANCIAL STRINGENCY.

THE stringency in the money market in the recent past has had its effect upon the wholesale drug trade of this City; and the announcement of the suspension of a bank which was originally organized by members of the trade, will certainly contribute to increase the feeling of uncertainty which at present prevails. The bulk of depositors in the Bank of Deposit are wholesale druggists or persons in related branches and though it is unlikely that loss or business embarrassments will follow from the suspension it is evident that the tying up of capital, which must necessarily ensue, will act as a check upon the current of business.

THE WHISKEY TRUST.

THE Whiskey Trust from all accounts appears to be in a precarious condition. An addition to its constantly increasing troubles comes to our knowledge in the report that five of the large distilleries which have been the chief producing plants of the Distilling and Cattle Feeding Company, known generally as the Whiskey Trust, have withdrawn from the concern. Pharmacists in view of this may look forward with every degree of assurance to early relief from the exactions of this monopoly, which has been well termed a gigantic leech.

FRIENDLY COMMENT.

I Believe in the Good Work.

Please accept my thanks for the check for $15 awarded me by the judges in the competition carried on by your journal for signs and show cards.

I have been a good deal interested in the contest so successfully carried on by the AMERICAN DRUGGIST, and hope and believe that much benefit will be derived therefrom by its readers.

After a careful observation of exterior and interior effects of the variously named drug stores, apothecary stores, and pharmacies in many cities and towns from the Atlantic to the Pacific, I am convinced that no class of stores needs such a general shaking up, overhauling and pulling out of antiquated ruts as the retail dispensers of health helpers. And by all means the first move in rejuvenating the business is to brace up the stupid, unattractive and wholly unworthy windows of the average stores;—to disrobe the exterior at least of that suggestiveness of senility or laziness in the proprietor. I believe in the good work you have done the past winter, and hope you'll keep hammering till every druggist in our country has accomplished what lies in his power to do, i e: to make his store the most attractive to the general public of any class of trade places in the commercial world.

WM. B. HAY.

Portland, Me.

Make them Better Merchants.

Accept my sincere thanks for check for $20 enclosed in your favor of 15th ult. as awarded me in the recent advertising contest. Photograph and sketch, as requested, will follow shortly. Wishing the AMERICAN DRUGGIST continued success for its noble effort to make the American Druggists of to-day *better merchants* as well as thoroughly posted pharmacists, I am, yours truly,

RALPH B. GABLE.

Salem, N. J.

Supplies the Required Knowledge of Prices.

Enclosed find check for subscription for the AMERICAN DRUGGIST AND PHARMACEUTICAL RECORD. I had thought of taking the New York *Journal of Commerce* that I might keep track of the wholesale drug market, but find that you supply all the necessary and valuable information in your weekly.

Ware, Mass. JOHN YALE.

I am well pleased with the consolidated journal. I have taken both the AMERICAN DRUGGIST and PHARMACEUTICAL RECORD several years and know their value. The combination should make your journal the best of any.—*Geo. J. Ward, St. Clair, Mich.*

Please find enclosed $1.50 as payment for one year's subscription. Your articles on the best system of advertising a retail drug business is what is catching my subscription.—*W. H. Bowson, Shafer Block, Caldwell, O.*

Your very careful and correct review of the market is worth more to the trade than the price of the journal. —*D. & G. L. Reagan & Co., Berwick, Pa.*

We have made and saved several dollars in the last few years by watching your market reviews.—*J. T. Dew & Son, Sommerfield, O.*

I find it an excellent journal for a druggist.—*Charles J. Thompson, Belmar, N. J.*

Written for the American Druggist and Pharmaceutical Record.

FURTHER NOTES ON LOCO POISONING.

By L. E. Sayre, Ph.G.,

School of Pharmacy, University of Kansas, Lawrence.

In the Fall of 1885, when I came to the State of Kansas and identified myself with the University, I was asked by some members of the State Board of Agriculture to pay some attention to the subject of loco weed. This weed seemed at that time to be causing a good deal of trouble in the western part of the State, among cattle and horses, producing a narcotic poisonous (?) effect upon these animals.

By looking over the various reports of the Board of Agriculture of Kansas one will find descriptions of plants said to be loco, and a description of the various experiments, chemical and physiological, made for the purpose of ascertaining the cause of these alleged poisonous effects. So much has been said in various papers in current pharmaceutical literature by many who have taken up the subject with me that it may be out of place to refer to these in detail; yet it may be well to very briefly recapitulate and bring to mind the results of these their investigations up to the last publication on the subject, and before referring to some of the work since done which extends up to the present year.

A chemical investigation revealed the presence of a very small percentage of alkaloid, so small (0.006 per cent.) that it would be unreasonable to suppose that a poisonous principle existing in the plant would account for the disease known as "loco poisoning;" furthermore, this supposition was rendered untenable by the fact that this alkaloidal principal, when separated from the plant, proved to be not deadly in its action upon the smaller animals The common alfalfa—a plant belonging to the same order as the loco weed—was examined chemically and an alkaloid was found present in this plant in quite as large a proportion as in the loco weed.

Regarding the physiological action of the plant it may be said that very large doses of the most concentrated preparations of *Astragalus mollissimus*, the most common of the loco weeds, produced no effect upon myself; and when given to small animals it was impossible to produce any decided effect, such as that of a narcotic or any like poisonous substance.

There is no question that a disease exists among horses and cattle which seems to have some mysterious connection with the luguminous weeds which belong to the genus *Astragalus* and allied genera, but what this mysterious connection is it is difficult to say. As I have repeatedly said, the question cannot be settled until proper physiological experiments be performed in the field. For this purpose suitable appropriations have repeatedly been asked and refused.

During the past year quite a correspondence has been carried on with those who have had, or are having, experience with the plant and with "locoed" animals. It is needless to occupy space by giving in detail the various communications; but to show that conflicting and contradictory opinions still exist, I will partly transcribe a few letters which seem to be typical of all.

A letter to Prof. W. A. Harshbarger, Topeka, who kindly assisted me in collecting some reports, reads in substance as follows:

"I cannot give you the botanical names of the plants which I have classed as loco, but at a meeting of the State Veterinary Medical Association of Pennsylvania I gave a description of the different plants and their action upon horses and cattle, and described experiments upon dogs and cats with the *Astragalus mollissimus*.* * * * I will briefly describe a case: The animal soon acquires the ability of distinguishing the plant from others, and hunts it continually. The habit of eating it seems to be similar to the opium or alcoholic habit of man, and it soon shows signs of nervousness, which becomes more apparent by trembling all over, is easily excited, and, later, becomes crazy. The special senses seem to be affected. The animals will go two or three days without water when it is easily procured, and when water is placed before them they will bite at it instead of drinking, as usual. The eyesight seems to be affected early; they are unable to judge distance; they will jump to get over a hole some distance before they reach it, and seem to be cross-eyed, for it is difficult to drive them in and through a gate; they are apt to become vicious at an unexpected moment; they become emaciated very fast, and death is generally due to an accident, such as falling off a bank or into a hole. With cattle, the plant acts somewhat differently."

The following letter was written by Dr. John A Pearson, Goodland, Kan.:

Prof. Harshbarger gives his experience with the weed as follows: "I lived six years at Franklin, Neb., where it was abundant, and never knew a case of poisoning from it. Last Summer, while at Phillipsburg, a man had two sick horses, one of which died while I was there. He claimed that they were "locoed," and there was much talk among the farmers that came to town. They all seemed to think the weed poisonous, but strange to say, did not know it by sight. I went out and got some and showed it to them, and they declared that they had often seen their stock eat it without harm. I suppose about a dozen thus spoke of it. This was about my experience at Goodland. At Almena, the Rock Island agent recognized the plant and thought it poisonous, but had never seen an animal poisoned by it. So that, all told, my experience has been negative. Sometimes I think that there is some other plant that does the mischief, and at other times it seems probable that the disease is of a more general character and not caused by any one plant, but by hot weather, stagnant water, or some like cause."

Doctor Mayo, of the Experiment Station at Manhattan, Kan., recently has been able to make some physiological experiments with this plant. He failed to obtain any decided physiological effects upon himself or lower animals by administration of concentrated preparations of the drug. Doctor Mayo's experiments are very important and are in the line in which I had hoped to be able to work. Failing to secure proper appropriations, I have urged upon him the importance of the subject, and he has most generously devoted considerable time to it. A report of this work will very soon be issued in a bulletin of the Experiment Station, with which Doctor Mayo is connected.

Doctor Mayo, in concluding the report of his investigations, says:

"A careful survey of the experiments performed and observations noted leads me to the opinion that the disease known as 'loco' is the result of malnutrition, or a gradual starvation, caused by the animals eating the plants known as 'loco weeds,' either *Astragalus molissmus or Oxytrophis Lambertii*. If there is a narcotic principal in large proportion in the plant, chemists have failed to find it, and a fluid extract does not possess narcotic effect. A ton of the plant eaten by an animal ought to contain enough of the poisonous properties to destroy an animal.

"It is extremely doubtful, even though there might be a narcotic agent in the plant, that an animal can reason sufficiently to know that eating this plant would produce narcosis. Why they do eat the plant is probably because the plant remains more green and fresh after other plants have dried up, and also because ot its peculiar taste, perhaps disagreeable at first, but soon accustomed to and attactive. Whether the disease is the result of mal-nutrition or mal-assimilation, I am unable to say. It is reasonable to suppose that, as the loco plants remain green throughout the year, they would not contain as much nutritious material as other leguminous plants. If they do contain the nutritious material, it is not in a form in which it can be assimilated by the animal.

"Why horses have fits of delirium or insensibility may be due to the formation of clots or thrombi in the blood-vessels of the brain, as there is a well known tendency to their formation during wasting and debilitating diseases. The general emaciation of the body, the flaccid atonic condition of the digestive system, the large amount of serum surrounding the brain and in the abdominal cavity, the swollen and dropsical condition of dependent parts (from an enfeebled circulation), and the low temperature of the body, all points to the same cause—mal-nutrition. The diseased condition of the brain gives rise to the peculiar 'crazy' symptoms associated with this disease. It is well known that if an animal suffers from degeneration of brain tissue, even though the anima may recover from the disease which caused it, it does not recover its normat mental faculties. This may account for the fact that a locoed animal neve makes a complete recovery."

My attention was called, recently, to a case of what seemed to be loco disease in an animal in this city. The horse had never seen loco, but all the symptoms attributed to loco poisoning were present—I need not enumerate these. The person who owned the horse had spent, during last Summer, a considerable time in Colorado among the mountains, and there had an opportunity of having personal experience with a "locoed" animal. This person—a resident of Lawrence—noticed at once the similarity of the symptoms in the two animals. This case is important, for it indicates a disease which may develop without the influence or any connection with the loco plant. I trust in the near future we shall have, by the aid of Doctor Mayo and others, a solution of the problem.

PRIZE COMPETITION.

Permanent Compound Syrup of Hypophosphites.

The unsatisfactory character of the product afforded by the National Formulary process for the preparation of compound syrup of the hypophosphites is too well known to our readers to warrant extended mention in introducing the substitute formulas received in competion for the *Record* prize. It will be sufficient to say that scarcely a formula of that much critizised manual has been subjected to so much universal condemnation as that which forms the subject of this article. Every contributor seemed to be agreed upon the need for improvement, but each in nearly every instance came forward with a process of his own construction which differed in important points from those of other contributors; and this coupled with the fact that the number of answers received was unusually large, rendered it a matter of considerable difficulty to decide with promptitude on the merits of the different contributions in hand.

The committee of award, has, however, after careful experimentation decided that the formula submitted by a Western contributor who conceals his identity under the *non de plume* "Gallium" is entitled to the prize, and we have accordingly taken pleasure in sending him a check for the amount offered.

Formulas of nearly equal value which in the judgment of the committee are entitled to honorable mention are printed on the same page in the order of their merit:

Syrup Hypophospaites Comp. with Iron, Manganese and Strychnine.

By GALLIUM.

Calcium hypophosphite	277	grains
Potassium hypophosphite	128	grains
Sodium hypophosphite	128	grains
Manganese	16	grains
Iron sulphate	30	grains
Strychnine	½	grain
Phosphoric acid, W. S. P.	½	drachm
Hypophosphorous acid, a sufficiency.		
Sugar	12	ounces
Distilled water, a sufficiency.		

Dissolve the potash, soda and 256 grains of hypophosphite of calcium in 6 ounces of warm distilled water; dissolve the manganese in 1½ ounces of distilled water at 160° F.; dissolve the strychnine in ½ ounce of water with the aid of hypophorphorous acid (95 per cent.). Mix the solutions, filter clear; then dissolve sugar in filtrate by cold percolation.

Then dissolve 30 grains sulphate of iron in ½ ounce of water containing ½ drachm phosphoric acid. Rub 21 grains hypophosphite of calcium to a fine powder in a mortar and add the iron solution; stir well for 4 or 5 minutes and filter into the syrupy solution formed in the opening directions, and add, if necessary, a sufficient quantity of simple syrup to bring the total bulk up to 16 ounces.

The foregoing process furnishes a bright clear syrup corresponding closely as regards hypophosphites strength to the *Syrupus Hypophosphitum Compositus* of the National Formulary. If quinine is required it can be easily added by dissolving 8 grains of quinine (alkaloid) in ½ ounce of distilled water by the addition of hypophosphorous acid and mixing the solution so-formed to the solution of the other hypophosphites and filtering.

Hematic Hypophosphites.

While the formula given above furnishes a more permanent and satisfactory preparation than the process of the "Formulary," the product differs in many respects from the numerous "hematic," "nutritive" and "tonic" syrups of the market. In order to produce a preparation resembling these last mentioned it is necessary to alter the proportions of the various ingredients as follows:

HEMATIC HYPOPHOSPHITES.

Sodium hypophosphite	256	grains
Calcium hypophosphite	149	grains
Potassium hypophosphite	128	grains
Manganese hypophosphite	16	grains
Quinine (alkaloid)	8	grains
Strychnine (alkaloid)	½	grain
Iron sulphate	30	grains
Phosphoric acid, U. S. P.	½	drachm
Hypophosphorous acid, a sufficiency		
Sugar	12	ounces
Distilled water	16	ounces

Prepare as in the preceding formula, using 21 grains of the calcium salt to react with iron to produce solution of ferrous hypophosphite.

Compound Syrup of Hypophosphites.

By EMIL WEISS, NEW YORK.

In making compound syrup of hypophosphites with iron, quinine, manganese and strychnine, after the formula given below, the first step is to make a solution of the hypophosphites of iron, quinine, manganese and strychnine in the following manner:

Iron sulphate crystals	128 grains
Manganese sulphate crystals	128 grains
Quinine sulphate crystals	64 grains
Strychnine sulphate crystals	8 grains
Hypophosphorous acid (N. F. 10 per cent.)	½ fl oz.
Calcium hypophosphite	1½ troy ozs.
Distilled water enough to make	1 pint.

Dissolve the sulphates in 4 ounces of water, adding half the amount of the hypophosphorous acid; the hypophosphite of calcium is dissolved in 9 ounces of water aided by the addition of the remainder of the acid; having filtered the 2 solutions separately they are mixed in a suitable vessel, shaken up well and set aside to rest for 3 days, the solution of the hypophosphite of iron, quinine, manganese and strychnine thus obtained is then poured off from the precipitate and filtered, the precipitate is washed well with enough water to make the filtrate measure one pint. Once this solution is finished it is an easy matter to finish the syrup as follows:

Calcium hypophosphite	℥ iv. ʒ ii.
Potassium hypophosphite	℥ ii. ʒ i.
Sodium hypophosphite	℥ ii. ʒ i.
The above prepared solution of the hypophosphites of iron, quinine, manganese and strychnine	16 fl. ozs.
Orange flower water	4 fl. ozs.
Glycerin	4 fl. ozs.
Sugar	6 lbs. (av.)
Distilled water enough to make	1 gallon.

Dissolve the hypophosphites in three pints of water, add the orange flower water and filter, add the filtrate, the glycerin, the solution of iron, etc.; the sugar and enough water to make the whole measure one gallon. Dissolve the sugar by agitation without heat, and strain through cotton, which is best effected by placing in the neck of a one-gallon glass percolator at first a pluck of excelsior and on top of that some cotton; the syrup runs through very quickly and is quite as bright as if filtered. Each fluidrachm of this syrup contains 2 grains of the hyphphosphite of calcium; 1 grain each of the hypophosphites of potassium and sodium; ⅛ grain each of the hypophosphite of iron and manganese; $\frac{1}{16}$ grain of the hypophosphite of quinine and $\frac{1}{128}$ grain of the hypophosphite of strychnine.

It is of the same strength as that of the N. F. with the advantage of being a bright syrup, which keeps

without the slighest change or precipitate for an indefinite time and having a definite quantity of strychnine in perfect solution.

This formula may look at the first glance very difficult, but any one who thinks it is worth trying will be well repaid for the, apparently, greater labor.

Compound Syrup of Hypophosphites with Iron, Strychnine and Manganese.

By N. A. Upham, Waterbury, Conn.

Calcium Hypophosphite, Sodium " Potassium "	of each 96 grains
Manganese "	20 grains
Solution of Hypophosphite of iron	192 miniums
Strychnine	2 grains
Quinine Muriate	16 grains
Acid Hydrochloric, a sufficiency.	
Sugar	12 ounces
Water, enough to make	16 fluid ounces

Dissolve the hypophosphites of calcium, sodium, potassium and manganese in (7) seven fluid ounces of water; add the sugar and dissolve by agitation. Mix the muriate of quinine and the strychnine with a small quantity of the solution and add hydrochloric acid enough to dissolve. Then mix the rest of the solution, add the solution of hypophosphite iron and enough water to make sixteen fluid ounces. Filter through paper. Each fluid ounce contains six grains each of the hypophosphites of calcium, sodium and potassium, one and one quarter grains hypophosphite manganese, 2 grains hypophosphite iron, one grain muriate of quinine and one-eighth grain of strychine.

SOLUTION OF HYPOPHOSPHITE OF IRON.

(N. Y. & B. Formulry.)

Sulphate of Iron and Ammonia	924 grains
Hypophosphite Sodium	608 grains
Citrate Potassium	600 grains
Glycerin	1 fl. ounce
Water enough to make	6 fl. ounces

Dissolve Sulphate Iron and Ammonium and Hypophosphite Sodium each in eight fluid ounces water and filter the solutions separately. Then mix them and stir well; after a few minutes transfer the resulting magna to a close muslin strainer and wash the precipitate with water. Allow it to drain and express it forcibly. Transfer the precipitate to a mortar, add to it the Citrate Potassium and triturate until a smooth paste results. Then add the Glycerin and gradually, while stirring, enough water to measure six fluid ounces.

Each fluid ounce contains eighty grains of the Hypophosphite of Iron.

Aristol combinations.—Among recently devised formulas for the external application of aristol, the following are to be recommended for their practical form:

ARISTOL OINTMENT.

Aristol	℥ ii
Olive oil	℥ iv
Lanolin	℥ ii

ARISTOL CRAYONS.

Aristol	gr x
Ol. theobromæ	℥ iss

ARISTOL COLLODION.

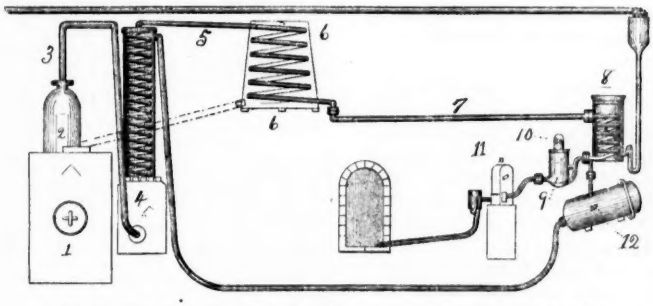
Aristol	℥ i
Collodion flex	℥ i

THE PRODUCTION OF ALCOHOL AND CREAM OF TARTAR FROM WINE LEES.

Augustus Peratoner, acting Consul of the United States at Catania, Italy, has furnished the Department of State with the following report on the manufacture of cream of tartar from wine as practised by the wine producers in his consular district.

Wine-making has been, since ancient times, a feast time in Italy. The way employed to obtain that nectar was for a long period of time very imperfect and primitive, and following is a brief description:

Grapes being gathered, they are transferred into the wine press, where according to the quantity, they are crushed by men furnished with rough shoes. This operation done, all the juice is allowed to run out from the hole in the wine press into the underlying large tubs, and the remaining lees are spread in large upper tubs, The must obtained from the previous crushing is poured on them and left standing for twenty-four or forty-eight hours, in order to give the mass the necessary time to ferment and cause the lees to come up. After this operation is done, the wine is again allowed to run into the under tubs to measure it, whence it is transferred to the casks, which are left open until the boiling fermentation stops; they are then hermetically closed.



APPARATUS FOR MAKING CREAM OF TARTAR AND ALCOHOL.

The lees left in the wine press are placed in a pile and covered with a matting of round shape made of thin rods. The lees are thus pressed three times, for this paste contains all the coloring matter, which is then added to the wine in the casks.

Nowadays, however, science has not only reached the highest degree of perfection in preparing and keeping wines, but also in utilizing all the refuse, which previously was burnt in the open air, in order to obtain a sort of ash, which was sold to soap-makers. In fact, in the present epoch all wine lees constitute a real national wealth, for through them two very important products are derived—alcohol and cream of tartar, the latter directly, without using crude tartar.

The process employed to obtain these two products is rather easy, and the following machinery is necessary to start an establishment.

(1) A boiler to be filled with lees and in which at the same time a regular quantity of water is to be poured in the proportion of four times the weight of the lees to be boiled and worked.

(2) A chamber for receiving the steam or vaporous alcohol coming out from the boiler.

(3) A pipe which, from the upper part of the steam chamber, leads the vaporous alcohol into the serpentine column No. 4.

(5) A pipe from the serpentine column leading the vaporous alcohol into a closer receptacle, usually called here "scaldavino" (wine warmer), No. 6.

(7) Another pipe ending in the rectifier refrigerator-condenser (No. 8).

(9) A small brass box with a glass bell for detecting the alcohol pressure (No. 10).

(11) An apparatus for measuring and recording the quantity of alcohol produced. (This device is compulsory in Italy, where a tax is paid to the government).

(12) A receiver of weak alcohol, to be transferred again to the serpentine column No. 4.

These are the sole instruments and apparatus necessary in an establishment, besides a supply of wooden tubs to be used in obtaining the crude tartar. Having thus explained the machinery, let us now pass to the practical manipulation.

ALCOHOL.

In one of the establishments expressly visited by me in Catania I have noticed that the work commences as follows: One hundred kilograms of lees with 400 liters of water are put in the boiler for six hours. The warm steam developing from the ebullition automatically reaches the receptacle called "scaldavino" and then the refrigerator. The steam, so turned into alcohol, becomes semi-cool in the former and quite cool in the latter. The water remaining in the boiler, together with the boiled wine lees, are not to be thrown away, but poured in the wooden tubs. Another operation begins, constituting the real answer to the questions put by the Department circular.

CREAM OF TARTAR.

The wooden tubs are first filled with full-grown and dry asparagus, bound in large bundles. The warm water and lees remaining in the boiler are poured on them, letting the mass rest undisturbed for at least four hours, during which, becoming cool, the cream of tartar will be deposited on the asparagus stalks. It is then time to take them out and place them in empty tubs, allowing the necessary time to dry. This obtained, the raw cream of tartar is removed from the stalks (to which it adheres) by an undulatory movement of the hand from left to right. The cream of tartar, being so gathered, is put to dry, as manufacturers in this country usually sell their product in a crude state.

The water remaining in the tubs possibly contains uncrystallized sediments, and can be put to boil again, together with a new supply of lees.

Cream of tartar is obtained in earthen pots by purification of crude tartar, either gray-white or red colored, deposited in the interior of the wooden casks in which wine is kept, by the following process:

Raw bitartrate will first be reduced in powder, and in such a state is mixed with 4 or 5 per cent. of clay earth. By boiling both together, and with coloring matters of its salt, a certain kind of insoluble lac is formed. Care should be taken in using clay containing no lime. The mass must then be allowed to cool and crystallize, bearing in mind that one or two more crystallizations are necessary if a perfectly white salt is desired. This product is white, without smell, of acid taste, cracks under the teeth, and is unalterable in contact with air; is soluble in 250 parts of cold water and 15 parts of boiling water; it is insoluble in alcohol.

Kali tartaricum is white, of bitter and disagreeable taste, and is soluble in its own weight of cold water It is obtained by putting some cream of tartar in boiling water and saturating through carbonate of potash; then filtered and evaporated.

To discover if cream of tartar contains any tartrate of lime the chemist Duflos put it in a flannel arranged in a porcelain funnel and plunged this apparatus in a solution of tepid carbonate salt, which dissolves only the tartrate of potash. Mr. Weng employs only one-twentieth of cream of tartar, more than necessary to secure the carbonate of salt.

Light Oil Camphor in Painting.

George Bornemann has contributed a paper on "volatile oils and their use in painting" to the *Technisshen Mittheilungun für Maleri*" in which he states that the use of essential oils in oil-painting appears to have gained considerable importance recently. These oils, it appears, are not only used as diluents for oil-colors, siccatives, etc., but also for the manufacture of moist colors for painting. The pigments are simply mixed with essential oil solutions of resins, possibly also of wax, paraffin and similar substances. The volatile oil thereupon evaporates in the air (occasionally producing a chemical change) and leaves behind the combination of the pigment and the resin. Then follows a chapter on the properties and composition of the essential oils, their behavior in the air, evaporation and oxidation, and the solubility of resins in essential oils, which is appended in tabular form:

100 parts of Oil (by weight) dissolve:	Parts by weight of							
	Amber.	Colophonium.	Copal.	Damar.	Mastic.	Shellac.	Yellow Bees' Wax.	Ceresin.
Cajeput Oil	6.53	43.70	5.52	42.49	41.16	0.66	.....	...
Copaiba Oil	.....	24.95	0.00	34.57	.....	...	4.49	..
Camphor Oil (light)	9.73	46.16	9.16	34.95	35.04	1.33	.....	.....
Camphor Oil (heavy)	6.50	31.35	2.81	50.08	37.93	0.83	.....	.....
Lavender Oil	.....	52.86	.....	33.07	.....	.....	9.34	.....
Clove Oil	.....	79.70	0.00	18.27	.....	.....	.....	...
Rosemary Oil	10.1?	48.04	4.81	99.44	21.39	0.79	.....	.....
Spike Lavender Oil	8.90	40.38	9.51	41.66	33.47	3.67	.....	...
Turpentine Oil	7.47	51.84	....	64.28	52.79	12.94	.....	.....
" (rectif.)	10.30	.....	6.47	.....	.....	.....	8.10	6.94
Paraffin	.....	.....	.....	9.97	...	.....	4.46	.....
Wax Oil	2.87	.....	.....	67.31	...	.....	5.64	.....

From these figures it appears that light camphor oil is one of the most powerful solvents of resins, in some instances even surpassing turpentine in dissolving-power.

With respect to the second most important point, the power of evaporation, camphor oil, as the following figures demonstrate, ranks rather below oil of turpentine:

Number.	Quantity used (in grammes.)	Duration of Experiment (in hours)	Weight of the oil at the close.	Loss of weight (per cent)	Acid number relating to the quantity of oil used.	Acid number relating to residue after evaporat.	Observations.
			Commercial Oil of Turpentine.				
1	2.0830	.....	.....	.....	2.724	.....	The figures in this series of experiments cannot be compared with the others, as the layer of oil was only 0.5 mm deep. The evaporation was not completed in a single instance.
2	4.4358	.....	.....	.....	3.188	.....	
3	0.3465	4.25	0.0572	83.49	2.576	15.606	
4	1.1410	72.42	0.1335	88.30	2.241	19.150	
5	0.4000	72.67	0.0433	89.18	1.806	16.685	
6	0.5751	120.11	0.0639	88.89	2.893	26.043	
			Light Camphor Oil.				
1	1.4164	.....	.....	.....	0.708	.....	The evaporation was not completed even with number 5. The residue consisted of small scattered crystals, of a camphoraceous odor.
2	6.9966	.....	.....	.....	0.514	.....	
3	0.9100	17.75	0.8467	6.95	.....	.....	
		137.33	0.5942	34.70	1.049	1.606	
4	0.9259	137.33	0.6291	32.05	.....	.....	
		161.33	0.5724	38.18	.....	.....	
		184.33	0.5276	43.02	.....	.....	
		256.42	0.3946	57.38	0.542	1.272	
5	0.9655	311.25	0.3280	66.02	.....	.....	
		423.92	0.1701	82.38	.....	.....	
		497.00	0.0949	90.16	.....	.....	
		591.67	0.0480	95.03	.....	.....	
		759.42	0.0283	97.07	0.587	29.032	

Progress of Pharmacy.

Antineronin is said to be (*Drog.Zeit.*) a mixture of 50 parts acetanilid, 25 parts salicglic acid and 25 parts ammonium bromide.

Electrolytic Separations.—As the result of a series of experiments Edgar F. Smith and J. Coleman Salter conclude (*Jour. A. & A. Chem.*) that it is impossible to completely separate and copper lead from bismuth by electrolysis in a nitric acid solution.

Bitter Almond Oil of High Specific Gravity. Dangerous.—The high specific gravity occasionally noted in pure bitter almond oils is due to benzonitrile but since this latter splits up on standing with the production of prussic acid, the oils having a high specific gravity must be considered as dangerous. Schimmel's *Berichte.*

Alkaloids of Angostura.—An examination of angostura bark by Beckurts and Nehring (*Arch. der Pharm Nat. Drug.*) has resulted in the identification of four alkaloids—galipine, galipidine, cusparine, and cusparidine—besides several other amorphous bases not yet determined. Galipine and cusparine have been isolated before by Koerner aud Boehringer.

Cedar-Wood Oil is growing in importance because of its increased use in optical work. In Schimmel's April report the refractive indices of ordinary cedar wood oil is given as $\frac{N}{D}$ 1.50567 at 17°, and of condensed oil at $\frac{N}{D}$ 1.51682 at 17° C.

Cresol Saponate is the name given to mixture prepared by melting pure soft soap (the soft soap of the German Pharmacopœia), or a steam bath with an equal quantity of clear crude carbolic acid until the liquid remains clear on standing. The result is a clear Madiera-colored neutral liquid soluble in all proportions in alcohol, glycerine and water. On dissolving in alcohol or chleroform, as light cloudiness is shown which dissapears on heating. (*Centralb. für Gynecol.*)

An Explosive Ointment.—An explosive preparation is said to result when the following ointment is made without the proper precautions :

Iodol	gm. 0.5
Yellow oxide mercury	gm. 0.2
Vaseline	gm. 10.0

If the iodol and the oxide of mercury are rubbed vigorously together a sharp detonation takes place, which may be avoided if a little vaseline is added before the trituration.

Salicylacetol occurs in long needle-like crystals. It is insoluble in cold water, very sparingly soluble in hot water, readily so in warm alcohol, ether or chloroform. It is very readily saponified by contact with ammonia or dilute solutions of the caustic alkalies. It is made (*Pharm. Central.*) by treating monochloracetone with sodium salicylate, and has the formula $CH_3COCH_2O_2C.C_6H_4OH$. It has the advantage over certain other similar bodies that when decomposed in the blood it does not yield a poison.

The Evaluation of Bergamot Oil can be accurately made by the determination of the physical properties and of the properties of linalool acetate which it contains (Schimmel's *Berichte*). Bergamot oil should be soluble at 20° C, 1½ to 2 volumes of 80 per cent. alcohol, a slight turbidity occurring which is caused by the separation of stearoptene, but no small drops of oil should remain undissolved. The minimum of linalool acetate permissible is 38 per cent. The minimum specific gravity 0.881 at 15° C and the maximum specific rotation allowable is 20° (100 m.m.)

Salt Sweetens Sugar.—While sugar and salt are generally considered as being gustatorially incompatible they are in fact frequently associated in culinary uses. Many German dishes, stews, etc., combine sugar,salt and vinegar in their seasoning, while with the French it is quite customary to combine sugar and salt as a seasoning for vegetables. It is also stated that a modicum of salt added to sweetened coffee gives it an added aroma Prof. Guntz of Berlin has investigated the effect of the combination on the gustatory nerve and declares that if a very small proportion of diluted salt solution be added to a solution of sugar, the sweetness of the latter is much intensified thereby.

Ethyl Alcohol in Essential Oils.—In the examination of German and Turkish otto of roses, Eckhart detected the presence of ethyl alcohol, although it was certain that the former had been obtained by distilling rose leaves with water. Poleck has since examined the oil obtained from perfectly fresh rose leaves, and has found that it does not contain alcohol. It appears that the presence of alcohol in the oil is due to a fermentation which takes place during the transport of the rose leaves to the place where they are distilled, and that when the leaves are distilled in a perfectly fresh condition, directly after being gathered, the oil obtained is of much more delicate odor, and contains less of the inodorous stearopten. The question as to the source from which ethyl alcohol originates is being investigated. Poleck mentions that ethyl alcohol has already been detected in several other essential oils, as, for instance, by Gutzeit in the essential oils of the fruits of *Heracleum giganteum, Pastinaca sativa,* and *Anthriscus cerefolium,* its occurrence in those oils being attributed to similar processes of fermentation (*Berichte,* xxvi., 38) through *Pharm. Journ.*

Improved Antiseptic Powder.—This combines, in what may be called scientific proportions, some of the best antiseptic dusting powders, while the smell has been effectually masked. The formula is in every 100 parts :

Acid Bornic	70
Iodoform	25
Acid salicylic	4
Ol. eucalypti	1

The relative antiseptic value of these constituents is something like this :

Iodoform	10
Salicylic	4
Boracic	0.5
Eucalyptus	0.6

So that, while we have a powder of much less antiseptic value than iodoform itself, we have a mild non-irritating powder, which tested side by side with iodoform, has given most satisfactory results after an extended trial in surgical wards, and which is likely to be adopted in place of the more expensive article to a large extent.—*B. and C. Druggist.*

Caffeine-Chloral—Chloral possesses to a high degree the characteristic property of all aldehydes to combine with a variety of chemical substances, especially with those of a weak basic character, such as formamide, urea, cyanogen, etc., in which the physiological action of the respective compounds are more or less modified. The therapeutical advantages of some of these combinations are admirably illustrated in the use of chloral-amid, the compound of chloral with formamid, and it appears according to *The Therapist* that a similar combination of chloral with caffeine may also prove a valuable remedy in cases of constipation and in irritable conditions of the peripheric nervous system.

Caffeine-chloral has been recently employed with success in the Augusta Hospital, Berlin, by Professor Ewald, who administered it subcutaneously dissolved in water in single doses of 3 to 5 grains up to 6 to 14 grains *pro die*. The injections were generally unaccompanied by the slightest pain, although individual patients complained of a slight burning sensation at the point of injection, which continued for about three hours.

A Multiple Staining Fluid.—Dr. P. G. Unna differentiates bacilli in tissues by a polychromic methylene blue solution, which contains methylene red and violet, in addition to the blue. The sections are transferred from alcohol and allowed to remain in the stain for at least ten minutes. They are then passed through water into 33 per cent. tannic acid solution to decolorize, allowed to remain from two to five minutes, then rinsed with water to enable the exact tint to be observed more readily. If satisfactory, after a thorough washing with water the sections are placed in absolute alcohol, or a solution of gold orange in the same if a yellow counter stain be desired, cleared in oil of bergamot, and mounted in balsam. If the excess of stain is not readily removed, a few minutes' immersion in 25 per cent. nitric acid, followed by dilute spirit, water, and absolute alcohol respectively, will effect its removal. By adopting this method it is said to be possible to distinguish two kinds of nuclei (violet and blue), the fibrin, and the protoplasm of the plasma-cells. The bacilli stain red while the mucus surrounding them is blue, and the organisms are said to appear in their natural character "in fish-roe like masses of vegetable mucus." It is claimed that the process is particularly suitable for use in the study of leprosy. It appears to depend upon the property, also utilized by Nicolle, by which tannin converts methylene blue into an insoluble form (*Sheff. Med. Journ.*).

Solidified Chloroform.—A new discovery is described in the *Berichte*, says the *Lancet*, which is likely to throw some light upon the vexed and important question of chloroform and its impurities. Professor Anschütz, of Bonn, in the course of certain reseaches in which the preparation of salicylic anhydride ($C_6H_4CO_2$) was involved, had occasion to use chloroform in the process, when he found that the mixed solution after being left for some time deposited in beautiful crystalline form a compound of chloroform with salicylic anhydride. A similar compound is formed also when ortho-cresotinic acid is substituted for the salicylide. The salicylide contains about 33 per cent. of chloroform, and the cresotinic compound about 30 per cent. Both bodies yield very pure chloroform when heated to 100° C.—a temperature considerably below their melting points. The cresotinic compound is, however, the more stable body, decomposing but little in the air, while the salicylide, under the same conditions, slowly gives off chloroform in a state of remarkable purity. Inasmuch as none of the usual impurities of chloroform crystallize along with these compounds, the process would appear to afford a method for the purification of chloroform on more satisfactory lines, for repeated crystallization is a method which yields, as every chemist knows, the purest and most refined products. Moreover, a solid choloform compound is, as will be imagined, less likely to undergo decomposition than a liquid compound, while the advantage of being able to transport chloroform practically in a solid form (for by simply warming the compound pure chloroform may be obtained) is one of obvious value.

New Series of Chemical Compounds.

An important new series of compounds, the thionyl-amines, in which two new hydrogen atoms of the amido group of the primary amines are replaced by the radicle thionyl SO, have been prepared by Prof. Michaelis, and are described, according to *Nature*, in the current number of *Liebig's Annalen*. It has been found that the primary amines of the fatty series when dissolved in ether react with thionyl chloride, $SOCl_2$, in a manner which is readily controlled by extraneous cooling of the vessel in which the reaction is conducted. The products are the hydrochloride of the amine employed which separates in crystals, and the new liquid thionylamine which remains dissolved in the ether, but can readily be isolated by fractional distillation. Thionyl chloride is incapable of acting upon the hydrochlorides of the amines of the fatty series, hence three molecular equivalents of the amine are required for every equivalent of thionyl chloride, according to the following equation in the case of methylamine—$SOCl_2 + 3(CH_3NH_2) = CH_3N{:}SO + 2(CH_3NH_3HCl)$. The thionylamines of this series are colorless fuming liquids which boil without decomposition and emit a most powerful odor. They are decomposed by water into the original amines and sulphur dioxide. The amines of the aromatic series likewise form thionyl-amines with thionyl chloride; and the hydrochlorides, unlike those of the fatty series, react with equal facility in accordance with the equation $C_6H_5NH_2.HCl + SOCl_2 = C_6H_5N{:}SO + 3HCl$. It is only necessary to cover the powdered hydrochloride of aniline with benzine add the calculated quantity of thionyl chloride, and warm over a water bath for a short time. The lower members of the aromatic thionylamines are yellow liquids which distill without decomposition; the higher members may likewise be distilled without loss under diminished pressure. Alkalies convert them into the original amines and a sulphite, $C_6H_5N{:}SO + 2NaOH = C_6H_5NH_2 + Na_2SO_3$.

Thionyl-Methylamine, $CH_3N{:}SO$, the first member of the series, is most conveniently prepared by reacting with methylamine upon a solution of thionylaniline in toluene. The latter is first prepared and cooled by a freezing mixture; the methylamine should likewise be maintained at as low a temperature as possible until the moment of adding it to the solution of thionylaniline. After agitation and standing for some time the product of the reaction may be distilled, when thionyl-methylamine is obtained as a colorless fuming liquid boiling at 58–59°. Its odor is not unlike that of bleaching powder. Thionyl-ethylamine, $C_2H_5N{:}SO$, may be

readily obtained by mixing cooled ethereal solutions of thionyl chloride and ethylamine The reaction even at this low temperature is very violent, occurring with hissing and the evolution of white fumes as each drop of the dilute ethereal solution of thionyl chloride falls into the solution of ethylamine. Ethereal solutions of thionylaniline and ethylamine afford a better yield, and with less admixed impurity. Thionyl-ethylamine boils at 73°, and in properties closely resembles thionyl-methylamine. Several of the higher members of this and of the aromatic series have been prepared by Prof. Michaelis, and are fully described in his lengthy memoir. It is interesting that in presence of the moisture of the air, or of a small quantity of added water, the thionylamines are converted into compounds of the amines with sulphur dioxide. Those of the aromatic series usually consist of two molecules of the original amine with one molecule of sulphur dioxide. The first few members of the fatty series form compounds consisting of equal molecules of the amine and sulphur dioxide, and the higher members appear capable of forming both classes of compounds.

Geraniol in Geranium Oil.

Geraniol is the name given by Schimmel to a body which they look upon as the essentially valuable portion of geranium oil, and which they describe as having the following properties:

Boiling point 231 to 232°, C., at 10 mm pressure 112°
Sp. gr. 0.884 at 15°. Specific rotary power: ± 0
Refraction n_D 1.47734 at 19°.

The ester formation took place quantitatively.

The saponification of the ester resulted as follows:

1.69 gr required 0.4870 gr of KOH = 100.5% Ester.
1.52 " " 0.4368 " " " = 100.3% "
1.89 " " 0.5320 " " " = .98.5% "

The ester-estermation of Geranium Oil by the same method yielded the following result:

I. Span. Geranium Oil 2.01 gr required 0.4704 gr KOH = 81.8% Ester.
II. Reunion Geranium Oil 1.89 gr required 0.4256 gr KOH = 78.7% Ester.

But as such a geraniol-estimation can only lead to uncertain results, until the other constituents of the geranium oils are positively known, research into the still unknown bodies present in these oils is absolutely necessary.

Modification of the B. P. Pill of Ipecac and Squill.

The formula for these pills is as follows:

Compound powder of ipecacuanha	3 parts
Ammoniacum, in powder	1 part
Squill, in powder	1 part
Molasses	a sufficiency

In commenting on this formula at a meeting of the Edinburgh chemists' assistants association, J. S. Leveridge said when made, the pills were of suitable consistency and quite satisfactory in appearance. They were dusted with French chalk, and kept in an ordinary cardboard box. In a few days they began to give indication that they were attracting moisture, and at the end of the week the dusting powder was entirely taken up, and the pills were quite sticky and adhering to one another. The hygroscopic nature of the molasses, or at least its retentiveness of moisture, suggests that it is not a suitable excipient for such a pill mass

Acting on this assumption a quantity of pills was prepared according to the following modifications of the official formula:

Compound powder of ipecacuanha	3 parts
Ammoniacum, in powder	1 part
Squill, in powder	1 part
Liquorice root in powder	1 part
Fluid extract of liquorice	a sufficiency

The pills so prepared were of satisfactory appearance and consistency, and in keeping for a month under precisely the same conditions as the previous set of pills they have retained their good qualities practically unchanged, the only difference being that they are of slightly harder consistency than when made; 10 grains of the official pill mass are represented by 10¼ grains of that made according to the suggested modification, and this difference is so slight that it may be disregarded in practice.

Formalin.

Among the different chemical substances introduced as bactericides in recent years, "Formalin," which consists of a 40 per cent. solution of formaldehyde (HCOH), takes deservedly high rank. Formaldehyde is a gas under normal conditions of temperature and pressure, and the liquid formed by its solution in water which is put forward under the name of "Formalin" can be prepared in any required dilution by the further addition of water.

Exhaustive and numerous experiments on the bactericidal power of formalin were carried out by Drs. J. Stahl, Berlioz and Trillat. The last mentioned had found that a solution of 1 part of formalin in 50,000 parts of water proved fatal to the bacilli of anthrax, while Aronson's experiments go to show that solutions of 1–20,000 prevented the development of typhus and anthrax bacilli as well as of *Staphylococcus pyogenes aureus*. Stahl's observations proved that after one hours exposure to 1 per mille or a quarter of an hour's exposure to 1½ per mille solution of formalin, the most resistant forms of micro-organism were destroyed.

The properties of formalin may be summed up according to the investigations of a recent experimenter as follows: (1) It has an extraordinarily active microbicide power similar to that of corrosive sublimate. (2) It is comparatively non-poisonous. (3) It attacks only the substance of the contagious material leaving intact the articles treated, whether of organic or inorganic nature. (4) It is very readily employed under all circumstances either as liquid or in gaseous form.

The interesting observation was made early in the examination of the properties of formalin that when allowed to evaporate in the presence of wool, gauze, bandages, or other dressing material, the vapors condensed upon the fabrics in solid form (paraformalin) and so disinfected them. On evaporating again from the solid form, paraformalin was dissociated into formalin vapor and exerted an antiseptic influence upon its surroundings. Hence dressing materials treated with formalin are not only perfectly sterile, but can be immediately used as antiseptic dressing.

Varieties of Eucalpytus Oil.

Below we give a description of a variety of samples of Eucalyptus Oil sent by the Queensland Eucalyptus Oil Co. to Schimmel & Co.

1. An oil marked simply "Eucalyptus Oil" possessing a pleasant odor resembling verbena or lemon-grass

2. Eucalyptus Oil from *Eucalyptus maculata var. citriodora* Hooker (Spotted Gum), the well-known oil, distilled by us here years ago, and possessing an agreeable odor of melissa.

3. Encalytns Oil from *Eucalyptus tertecornis*, Smith (Red Gum). A red oil of an odor not easily definable, resembling Oil of Zedoary. Contains no cineol. Practically valueless.

4. Eucalyptus Oil from *Eucalyptus Stuartiana* F. v. Mueller (Stringy bark). A golden-colored oil smelling strongly of cymol. Appears not to contain cineol. General impression of the odor: pleasantly aromatic.

5. Eucalyptus Oil from *Eucalyptus tessalaris* F. v. Mueller (Morton Bay Ash). A dark brown oil of an entirely novel odor, balsamo-benzoic. Does not contain cineol.

6. Eucalyptus Oil from *Eucalyptus crebra* F. v. Mueller (Iron bark). A bright yellow oil, closely resembling that of *Eucalyptus Globulus*. Very rich in cineol.

7. Eucalyptus Oil from *Encalyptus hemphloia* F. v. Mueller. A reddish brown oil, containing large quantities of cymin aldehyde, also much cineol.

8. Eucalyptus Oil from *Eucalyptus Corymbosa* Smith (Bloodwood). A colorless oil, rich in cineol.

9. Eucalyptus Oil from *Eucalyptus populifolia* Hooker (Poplar leaved gum). A bright red oil. Contains Cymin-aldehyde and a fair proportion of cineol.

10. Eucalyptus Oil from *Eucalyptus resinifera* Smith (Swamp Gum). A bright yellow product, the odor of which strongly resembles the Australian oils of commerce. Is rich in cineol.

11. Leucadendron Oil, distilled from the leaves of the "broad-leaved tea tree." A colorless oil of cajebut-like odor. Rich in cineol.

12. Melaleuca Leucadendron Oil (Narrow leaved tea-tree). A water-white oil, resembling cajeput oil in odor. Rich in cineol.

Schimmel recommends that the percentage of eucalyptol be used as a basis for estimation of values.

Pharmaceutical Education.*

By Henry Kraemer,

College of Pharmacy of the City of New York.

During the past year a number of papers have appeared in *Science* demonstrating the "onward march" of institutions of the highest learning, as well as that of professional and technical schools in America. The one cry to be heard all along the line is to raise the standard. The requirements for a preliminary education have been markedly increased and the courses of study materially lengthened both as to the number of hours required per week and the years of study. In our colleges of pharmacy there have been a similar awakening and a desire to extend the course from two to three years. It may be well, however, at this point to state for the benefit of those who are unfamiliar with the requirements of our best colleges of pharmacy, that before a diploma is granted the student must have been engaged in the drug business for a period not less than three and one-half or four years. This means practically an apprenticeship of six years, although a great many students find it necessary to work in drug stores while attending colleges.

The teachers of pharmacy have for a number of years been discussing ways by which students will be compelled to devote all of their time to college work during the sessions of study. Yet while they claim that students should not be employed as clerks in the stores and at the same time attend college, the employers are opposed to the students devoting so much of their time to college work during the winter session. There has been more or less of a compromise, but nevertheless colleges of pharmacy are raising their standard as are the other schools of learning, and it is very probable that, in a few years, three solid sessions of undivided work as well as four years' apprenticeship will be required before a candidate shall receive his or her degree.

The position of the pharmacist is a peculiar one. He, in the majority of cases, does not make his living by means of his actual business in medicines and prescriptions. He finds it necessary to carry a line of goods known as "druggists' sundries" and "patent medicines." These, and more especially the latter, he would give up if he could, but the line of competition is so great and the public still expect the pharmacist to carry any-and-everything to suit their convenience, that it seems only practicable to a very few to abandon these in their business. The public also expect the pharmacist to know something of everything and whatever it be, whether ills or troubles or discomforts of any kind, they run to him. I remember, when attending college, one of the professors, who was a practicing pharmacist for a number of years in one of the best localities in a large city, telling us that one night he was hastily summoned by a neighbor to his house, where, in the midst of a splendid reception, the gas had suddenly gone out, and, not knowing what to do, they sent for the pharmacist. He went, and being of a practical mind and true to the instinct of his discomforted neighbor, he remedied the trouble. This simply illustrates the very close relation of the pharmacist to the public.

Now, as soon as the public will expect the pharmaciss to deal in medicines only and all other articles related tot the art of medicine, then the pharmacist as a business man (which he must be) will confine himself to the labors of his profession. And as soon as he can confine himself solely to the art of pharmacy as taught in our colleges, there will be no question of an extended curriculum of studies, as complete as that of any institution of learning. Then we shall have laboratories fully equipped in the particular kind of analyticical and chemical apparatus which he needs for the assay of drugs and in their examination for purity. Likewise will the course in microscopical work be so extended that the pharmacist will make such analyses, for the busy physician, as the examination of urinary sediments and other discharges, such as sputum for tuberclebacilli, etc. Indeed, it is in these two fields that the advanced work in pharmacy is tending, and accurate results will only be obtained by thorough instruction in chemical and microscopical manipulation. There must be such a blending of chemical and botanical instructions that the pharmacist, while not a specialist as a chemist or botanist, yet indeed is a specialist with regards to the practical application of these sciences as an aid to the physicians in his healing art and in the preparation of pure medicines of definite and authorized strength. This condition of specialization will come, for pharmacists are marching onward in the line of progress; and it is only a question of a few years, when the host of young men, graduating by the hundreds from our colleges of pharmacy, and who are thirsting to apply their teachings and make their living in this practical application, will unite and raise the standard of their business to the profession which it is theirs to make it.

* *Science*, May 19, 1893.

Preventive Inoculations of Yellow Fever.

We have received from Dr. Domingos Freire, of Rio Janeiro, a pamphlet containing his fifth series of statistics concerning vaccinations with the attenuated virus of yellow fever, practised in Brazil during the epidemic of 1889-90. The figures include all the inoculations made in the three towns of Rio Janeiro, Campinas, and Miracema.

In Rio, during the year ending June 30, 1890, there were 721 deaths from the disease, 630 among the foreign population, and 73 among natives, the nationality of the remaining 18 being unknown. The percentage of deaths, therefore, to the entire population, estimated at 360,000, was 0.2. During this period there were 97 vaccinations practised, and among the persons thus protected there was 1 death, or nearly one per cent.; In Campinas, with a population of 20,000 reduced by flight during the epidemic to some 8,000, or say an average during the entire period of 15,000, the total number of deaths was 350, or about $2\frac{1}{3}$ per cent. The number of persons vaccinated was 215; among whom 27 were attacked with yellow fever and 4 died, giving a mortality among those vaccinated of somewhat over $1\frac{1}{3}$ per cent. In Miracema there were 12 deaths from yellow fever in a population of 561, giving a percentage of a little over $2\frac{1}{10}$. The number of vacccinations was 51, with 1 death, or a little less than two per cent. Taking the three places together, we find a total mortality among the non-vaccinated of 1,086, or 0.3 per cent. of the entire population. Among the 563 vaccinated there were six deaths, a percentage of about $2\frac{1}{10}$.

It is, however, not fair to compare these figures, for we have no means of knowing the foreign population, which comprises most of those susceptible to the disease in Rio Janeiro ; hence the mortality among the vaccinated, who were mostly foreigners or susceptible persons from other Brazilian provinces, appears much too high proportionally. But leaving the statistics for Rio out of consideration, we do not see that there was much protection afforded by the so-called preventive inoculations. In Campinas the percentage of deaths among the general population was $2\frac{1}{3}$, and that among the vaccinated was $1\frac{1}{4}$; and in Miracema, where the figures were too small to possess any value, the percentages were respectively a trifle over and a trifle under two per cent. The difference is much too small to offer any argument in favor of vaccination as a preventive measure. It certainly would not appear to warrant the confident prophecy of Dr. Freire, that "epidemics of yellow fever will soon disappear from Brazil;" a prophecy which, in view of the fearful ravages of the disease during the past year at Santos, is at least somewhat premature.—*Medical Record.*

For Cleaning Wall Paper.

Decorators and painters, and indeed housekeepers, are frequently troubled by surface discolorations of wall-paper due to the accumulation of dirt or grease, and occasionally to the settling of dust behind picture frames, which are very troublesome to remove. A new composition recently patented for accomplishing this object in a thorough and expeditious manner is described by the inventor as follows.

It consists, essentially, of a plastic composition for cleaning wall-paper and the like, composed of partially cooked flour, chloride of sodium (common salt), and pulverized naphthalin mixed together into a homogeneous mass.

Rye and wheat flour are mixed together into a dough, which is then partially cooked or baked and the crust removed To the cooked or baked rye and wheat flour, chloride of sodium (common salt) and powdered or pulverized napthalin are added, and into the mixture corn meal and burnt umber are introduced. The proportions of the several ingredients may be largely varied, but the following formula will give good results: One pound of rye flour, one pound of wheat flour, one ounce of chlorid of sodium (common salt), one-half ounce of solid naphthalin properly pulverized, one ounce of corn meal, one-eighth of an ounce of burnt umber.

The chloride of sodium is a cleaning medium and also preserves the compound or composition. The pulverized naphthalin makes the compound or composition of an absorbent nature, aids in preserving the same, and operates as a disinfectant, while it counteracts the odor of the partially baked or cooked flour. The corn meal and rye flour toughen the plastric compound and make it of a putty-like consistency, the body of which is porous, so that in using the compound it absorbs the dirt removed, and thereby prevents particles from dropping from walls or ceilings upon the floor or upon articles of furniture in the apartment. The composition is formed into a mass of about the proper size to be grasped in the hand, and in cleaning wall-paper, frescoing, painted walls, kalsomining, and the like, the compound should be drawn in one direction over the surface to be cleaned.—*Interior Decorator.*

Some Vanillin Formulas.

VANILLIN-SUGAR.

	Grammes
Crystallized Vanillin,	25 (= ʒ vi gr xxi)
Sugar	975 (2 lb 2 oz)
Alcohol (absolute)	100 (fl ʒ iv.)

Dissolve the vanillin in the alcohol and pour the solution on the alcohol, distributing it as evenly as possible through the sugar. Dry powder and sift.

This $2\frac{1}{2}$ per cent. vanillin sugar may be used in the same proportions as the finest vanilla.

VANILIN ESSENCE.

	Grammes
Crystallized Vanillin	25 (ʒ v gr xv)
Absolute alcohol	490 (fl ʒ xx)
Distilled water	485 (fl ʒ xv)

Administration of Creasote.—Carles, in the Paris *Repertoire de Pharmacie* comments on the methods usually employed for the preparation of creasote mixtures and comes to the conclusion that the formula to follow affords the best means of preparing a water soluble mixture of creasote :

Creasote	10 grammes.
Tincture quillaja	80 "
Distilled water	60 "

Each teaspoonful of a mixture prepared as above contains about 15 minims of creasote. The mixture preserves its miscibility for an indefinite period, and it is claimed is of greater efficacy than do aqueous compounds.

Formanilide.—This body is one of the higher homoloques of acetanilide; its constitution is represented by this formula :

$$C—CO—NH—C_6H_5$$

Presach claims that formanilide is capable of producing local anæsthesia of more lasting effects than cocaine. It is employed in 10 and 20 per cent. solutions, *Wratch* through *Rep.* de *Phar.* Vol. V., No. 5, p. 218.

Bismuth Iodo-Benzoate occurs in a white *powder*, consisting of a mixture of benzoate of bismuth and benzoate of sodium in stoi-chiometric proportions.

Calcium Cinnamate—$(C_9H_7O_2)_2Ca+3\ H_2O$— occurs as colorless *needles*, easily soluble in hot water.

Medical Notes.

Hypodermic use of Glycerin in Locomotor Ataxy.—Drs. Helipré and Tariel report the most favorable results (*Sem. Med.*) from the hypodermic injection of glycerin in hemiplegia and in locomotor ataxy. The glycerin was administered in freshly boiled 25 per cent. solution twice each week.

Scopolamine Hydrochlorate is recommended by Dr. Rahlmann as excelling atropine and hyoscine as a mydriatic without having their disadvantages. It is used (*Munch Med. Woch.*) in 0.1 to 0.2 per cent., solutions which are equivalent in strength to solutions containing 0.5 to 1.0 per cent. of atropine.

Bromidism.—Bromidism may be prevented, Fere claims, by an intestinal antiseptic being combined with the bromide salt, as in the following (*Med. Rec.*):

Potassii bromid	ʒ ss
Beta naphthol	gr xx
Sodii salicylat	gr xx

For each dose, which is considered curative as well as preventative.

Podophyllin.—When it is desirable to prescribe podophyllin, it is well to remember its solubility in tincture of ginger, in which it may be administered as follows :

Resinæ podophylli	gr. ij
Tinct. zingiberis	fl. ʒ j

M. Sig. Dose, a teaspoonful in a glass of sweetened water on retiring.

Tincture of Chloride of Iron in Scalds and Burns.—Dr. Starr states that where the cuticle is gone in scalds or burns the officinal tincture diluted with half to a third as much water will, if applied immediately, not only allay pain but will prevent blisters. An ointment made of 1 part of the tincture of iron and 8 parts of vaseline or lard makes when spread on a soft cloth an admirable dressing for old sores left by burns

Cascara Sagrada as Tænifuge.—An English physician is reported to have met with considerable success in the treatment of tapeworm by the use of cascara sagrada in the form of fluid extract. His recipe is as follows :

Ext. Cascar. Sagrad. fld	ʒ vi
Syrup. Aurantii	ʒ iii

Sig.—One teaspoonful three times a day for an adult; for a child, one half the quantity.

The Best Styptic.—The best styptic from its non-irritating properties, according to Prof. Cheever, of Harvard University, is ferric alum. It coagulates the blood very quickly, but forms with the clot a sort of sand which is not very irritating to the tissues. Referring to its advantages over persulphate or perchloride of iron he remarks that ferric alum forms a smooth sort of tissue while the two former agents form hard brittle angular masses.

Nitro-Benzol Poisoning.—No antidote, according to the *Magazine of Pharmacy*, is known for nitro-benzol poisoning. It remains, however, for some time in the stomach without being absorbed; hence emetics (or washing out the stomach) have done good, followed by subcutaneous injections of ether as a stimulant. Oil must not be given. Ammonia, as a stimulant, and saline purgatives, friction of the limbs, and sinapisms to the chest are recommended (Prosser White, Ewald and others). Transfusion may be performed, and artificial respiration should not be neglected.

An Antiseptic Cathartic—The following prescription is employed by Eichler as a cathartic and antiseptic :

Salol	ʒ j
Castor oil	ʒ vi
Syrup of rhubarb	ʒ xii
Cinnamon water	ʒ v
Powdered gum arabic	q.s.

The whole is made into an emulsion, and one tablespoonful administered every hour until a purgative effect is obtained in cases of chronic diarrhœa, or else one full dose may be employed, using at the same time a disinfectant rectal injection containing 15 grains of salicylic acid to a pint of distilled water. The diet should be composed principally of milk and beef tea. —*L'Union Médicale.*

Local Application for Bronchitis.—Dr. Kuh employs a spray consisting of

Menthol	1 to 2 parts
Creasote	part
Camphor	½ to 1 part
Oil eucalyptus, Oil pine-needles	of each 2 parts
Liquid petrolatum	to make 100 parts

The average quantity to be inhaled is 2 fluid drams [8 c.c.]. The sensation of this spray extends over almost the entire anterior portion of the chest, and, probably, into the finest ramifications of the air-tract.

The results are declared to be most striking in the severest cases of chronic bronchitis; the severer the case, the more palpable the result. The spray appears actually to scoop out the secretions heretofore apparently unremovable.—*Medical News.*

Antipyrine in Otitis and Cystitis.—Dr. Cazeneuve (*Wien. Med. Press*) considers antipyrine in 20 per cent. aqeous solutions fully as efficient, in purulent otitis, as menthol, now extensively employed in this disease; furthermore, 4 per cent. solutions injected twice daily into the bladder, in quantities of 70 grammes (2¼ fl. oz.), have a prompt and powerful effect in cystitis with ammoniacal urine—the urine improves and the pain diminishes. Clément is reported to have observed a favorable action on the bladder from administering antipyrine *per os.* A patient suffered from acute infectious nephritis; his urine was somewhat bloody and contained a great deal of albumin and epithelial cylinders. The fever diminished under the influence of the antipyrine, and the amount of urine rose from 400 grammes (13 fl. oz.) to 2–3 litres (67–111 fl. oz.) in 24 hours; the urine resumed its normal character, and the patient recovered completely.

Ptomaines in the Urine from Erysipelas and Puerperal Fever Patients—A. B. Griffith found a ptomaine in the urine from an erysipelas patient. The base crystallizes in white ororthorhombic plates, which are soluble in water and have a feeble alkaline reaction. This ptomaine produces with bichloride of mercury a flocculent precipitate; with chloride of zinc a granular

precipitate partially soluble on heating; with Nessler's reagent a green precipitate; picric acid produces a yellow precipitate, and chloride of gold a precipitate of a similar color to the last mentioned and which is soluble in water. Phosphomolybdic, phosphotungstic and tamic acids also precipitate the ptomaine.

The probable formula is $C_{11}H_{18}NO_2$, containing 63.76% C, 6.28% H, 6.76% N, and 23.20% of oxygen. It is very toxic and not found in normal urine. A very toxic ptomaine was also extracted from the urine in a case of puerperal fever. It is a white crystallizable base, soluble in water, of alkaline reaction, forming a crystalline hydrochloride as well as aurochloride. The precipitates caused by taunic acid are red; by picric acid yellow, while phosphomolybdic acid produces a brownish white precipitate. The analysis indicated the formula $C_{22}H_{19}NO_2$, containing 80.24% of carbon, 5.77% of hydrogen, 4.25% of nitrogen and 9.74% of oxygen.

Antiseptic Value of Diaphtherin.—Recent investigations as to the comparative antiseptic action of various drugs on the *Staphylococcus aureus*, which is supposed to be one of the most difficult microbes to destroy, have developed the following results: The vitality of the microbe was destroyed by a 1 per cent. solution of carbolic acid, creolin, and thymol; by a 3 per cent. solution of aseptol; by a 0.3 per cent. solution of boric and salicylic acid; by a 5 per mille solution of salicylic acid and of lysol; and by a 2 per mille solution of diaphtherin. Dr. Klecki, who conducted the experiments, recommends diaphtherin, in the light of his work, as a most valuable antiseptic agent, which, he adds, possesses the great advantage over others in never causing any inflammation of the skin, and being free from any toxic properties. A great many experiments of this kind have been made of late years; but we scarcely know how much value is to be attached to them. Everyone seems to have a favorite antiseptic, which he lauds accordingly. It is needless to inform our readers that such experiments require a great amount of care and precaution in order to avoid erroneous conclusions. The great drawback to most of our antiseptics is their irritant action upon the skin and the mucous membranes.

The foregoing is gleaned from the Polish medical journal *Gazeta Lekerska* through *Mon. Mag. Phar.*

Progress of the Year.—Among important advancements in knowledge of the treatment of disease, the following find mention in a recent number of a medical exchange:

Arsenite of copper in anæmia, the use of atropine as a hæmostatic, and the value of camphorated oil in cases of collapse, have received attention. The administration of oxygen in various acute respiratory affections led to numerous communications, it was employed together with strychnine in pneumonia, alone in a severe case of broncho-pneumonia following influenza, and it was also recommended in asthma and in convalesence—massage, electricity, and oxygen being regarded as substitutes for change, exercise, and sea air. Rectal antiseptic injections in epidemic influenza, and in advanced phthisis with large cavities, have once more received commendation. Phthisis has also been treated with creosote, guaiacol, camphoric acid, and cantharidinates, but increased experience with the last-named has given rise to some anxiety, owing to the frequency of consecutive albuminuria. In the treatment of vomiting, hydrochloric acid and strontium bromide has been recommended; chlorobrom has been used for sea-sickness and solanine for painful disorders of the stomach; orexin hydrochlorate has somewhat gained in favor as a stomachic and aid to digestion; salicylate of bismuth has been used in infantile diarrhœa, and lactic acid in many other forms of diarrhœa, having given good results even in phthisis. Much has been written of the value of glycerin in the treatment of hepatic colic, for which, when due to gallstones, large dozes of olive oil has also been recommended. Thymol has been vaunted as an anthelmintic, but its range of application appears to be very restricted.

The Thymus, Thyroid, Pancreas and the Sweetbread.—In connection with the present use of the thyroid gland in myxœdema and the ingestion of fresh pancreas as a treatment for diabetics, the *British Medical Journal* offers the following statements in regard to the above organs: "It is not sufficient to recommend a patient to obtain a 'sweetbread.' The true sweetbread, regarded by *gourmets* as a great delicacy, is the thymus gland of the calf. As a rule, this is found only in the fœtus and young calf, under the lower surface of the trachea, 'partly without and partly within the chest, between the layers of the anterior mediastinum.' It is occasionally persistent, but usually disappears within a few months after birth. It is elongated, of a grayish-white color, irregular—that is, lobulated on its surface, and much more resembling a salivary gland and the pancreas than the thyroid. It is commonly known among butchers as the 'throat-bread,' and rarely found except in animals supplying young veal or lamb. The pancreas is vulgarly termed the 'gutbread' or 'belly sweetbread,' and is the article which would be supplied in the great majority of cases by butchers asked for sweetbread. The thyroid is situated at the upper part of the neck, not at its root, and is not regarded as a favorite article of diet. Though the lobes are closer together than in man, they are spoken of as two, each being named a 'kernel' or 'gland.' As far as we can learn, they are not ordinarily included among the sweetbreads. As compared with the thymus and pancreas the thyroid is very small, regular on the surface, ovoid in shape, reddish-brown in color, situated at the upper part and not at the root of the neck. The thyroid is sometimes confused by butchers with the lymphatic glands of the neck. Its dark color and characteristic shape—convex externally while somewhat concave and flattened where it rests against the trachea—should prevent this mistake. While thymus and pancreas are valued highly, the market value of the thyroid is inconsiderable, and until its association with myxœdema it was rarely asked for."

Enemas of Olive Oil in Chronic Constipation.

Dr. Fleiner (*Am. M. S. Bulletin.*) commends heartily the use of olive-oil-enemas which was first introduced by Kussmal, in spasmodic constipation, which is caused by the retention of solid fæcal matter in parts of the intestines which are in a state of permanent spasmodic contraction. The remedies used in the common atonic constipation are in this form of the disease not only valueless, but even positively deleterious.

For administering olive oil injections in these cases a pipe, similar to that employed for vaginal injections, is employed, with a canal and orifice large enough to let the oil flow freely. A rubber tube connects the canula with an irrigator (or large syringe) containing pure oil with 1 to 2 per cent. of salicylic acid. The patient is put in the recumbent position, with his pelvis raised; the canula is introduced into the rectum, and 400–500 grammes [14–17 fl. oz.] are slowly injected into the intestine (which usually takes 15–20 minutes).

The patient evinces no desire, immediately after this enema, to go to stool, nor any particular sensation; but

after a while he begins to feel that the oil works in his belly and experiences the necessity of letting gases escape. A few hours afterward a copious evacuation takes place, in which only about one-half of the ejected oil is found. The other half remains in the intestine,—its elimination often requiring 10 to 15 days.

The enema is repeated every day, until the intestine is well freed from fæcal matter; it is then given only at intervals of several days, in quantities of 250–300 grammes [9–11 fl. oz.].

Favorite Prescriptions.

OINTMENT FOR FRECKLES, VITILIGO, CHLOASMA.—

Ammoniated mercury	of each 5 parts
Bismuth subnitrate	
Olive oil	2 parts
Glycerite of starch	8 parts

Or:

Beta-naphthol	10–20 parts
Starch	of each 25 parts
Zinc oxide	
Vaselin enough to make	100 parts

SAALFELD—*Corr.-Bl. f. Schweiz Aerzte.*

SPRAY FOR ACUTE PHARYNGITIS.

Potassium chlorate	70 centigr. (10 grains)
Iron-chloride Solution	12 drops
Distilled peppermint-water	100 grammes (3⅜ fl. oz)

Spray first the nostrils, the patient holding his head back; then the pharynx direct.—*Am. M. S. Bulletin.*

LOCAL APPLICATION FOR PRURITUS AND PRURIGO.

Tartaric acid	2 grammes (30 grains)
Carbolic acid	1 gramme (15 grains)
Peppermint oil	1 gramme (16 minims)
Lard	60 grammes (2 ounces)

Spread lightly, and renew the dressing when the itching returns. The proportion of the acids may be gradually increased.—QUINQUAND, in *Am. M. S. Bulletin.*

EXPECTORANT MIXTURE; DUJARDIN BEAUMETZ.

Ammonium chloride	5 grammes (75 grains)
Hyoscyamus extract	10 centigr. (1½ grains)
Tartar emetic	5 centigr. (¾ grain)
Liquorice juice	10 grammes (2½ fl. drs.)
Tilia water	200 grammes (6¾ fl. ounces.)

A teaspoonful every hour.—*Am. M. S. Bulletin.*

A Physiological Styptic.

A styptic of great coagulative power which acts directly on the blood, and not indirectly, as do other styptics, by forming an eschar, may be made as follows, says Dr. A. E. Wright.

Take the thymus gland (chest sweetbread) of a calf, reduce it to a fine pulp by passing it through a sausage machine, and extract with 3 to 4 litres [about 3 to 4 quarts] of a 1 to 2 per 1000 solution of carbonate of sodium which has received an addition of 5 grammes [1 fl. dr.] of chloroform per litre. Stir thoroughly at intervals and continue the extraction for twenty-four to thirty-six hours. At the expiration of that period it will be found that almost the entire substance of the gland has dissolved in the dilute alkaline fluid. Strain through fine calico and add 1 per cent. of calcium chloride. In order to obviate the considerable precipitate of calcium carbonate which is obtained on this addition, it is well to acidify the thymus extract with dilute hydrochloric acid before adding the lime salt. The slight alkaline reaction is to be subsequently restored by an addition of weak caustic soda. Preserve in stoppered bottles.

This styptic will keep for an indefinite time if the chloroform is prevented from evaporating. With a styptic prepared as above the investigator has been able to arrest the hemorrhage after cutting across both a femoral and a carotid artery in a dog. The action of the styptic was assisted by compressing the arteries for one or two minutes.

The styptic may be applied on a tampon to any bleeding surface where strict asepsis can be dispensed with. If it is necessary to render the styptic perfectly aseptic, this can be done by boiling after making a sufficient addition of alkali to keep the albuminous substances in solution. Boiling involves a great, but not a complete, loss of coagulating power.—*Lancet*, 1893, No 3626.

Columbus and Medicine.*

There is no branch of human knowledge or pursuit that has not been vitally influenced by the great world-drama which opened when Columbus's tiny vessels sighted the speck of land which we now know as Watling Island. That fact accounts for the unexampled quantity of promiscuous literature that has been published since the middle of last year in commemoration of the quarcentenary of the great Genoese's discovery. Historians, geographers, biographers, and naturalists have vied in shedding new light upon the causes that led to this turning point in the story of the nations, and upon the issues that have flowed from it. Perhaps the German poet was not quite sincere in calling Columbus the second greatest personality in history, the man who "though unable to liberate us from the hateful earthly prison, yet understood how to widen its bounderies, how to lengthen the chain round the neck of mankind." To the inhabitants of the New World Columbus's journey certainly brought nothing but evil, and Europe is even now reaping the inheritance of misery engendered by her ruthless seizure of the western Hemisphere. Still, posterity has been fairly grateful to the man who led the way. Perhaps it would have been kindlier to have left the hero's memory undisturbed. But as that could hardly be expected in an age of restless investigation, and on an occasion on which the United States led the van, the next best thing that could have happened was the elucidation of moot points in the explorer's career, and the comparative estimation of the results of his work by competent critics.

We therefore record with satisfaction the publication of a number of treatises dealing with the significance of the discovery of America from the point of view of the pharmacognosist. We should have been still more pleased if some of this work had been accomplished by citizens of the nation which benefited most from the enrichment of materia medica by the treasures of the Western Hemisphere. Britain, however, has not brought forth anything worthy of the occasion, and, so far as we know, the American nation has limited itself, in the department of remedies, to the production of a set of postage-stamps showing a beardless Columbus sighting land, and a full-bearded one setting foot, next day, upon American soil. This marvelous instance of the rapid development of hirsuteness would have made the fortune of the particular hair-restorer responsible for the metamorphosis had the recipe of that preparation been preserved. But it has not; and in the absence of such interesting material from our own race we are compelled to turn farther afield—to Spain, for instance, from which we have received an admirable historical monograph on the first reports concerning the American flora, by Dr. Miguel Colmeira,† Rector of the University of Mad

* From the London *Chemist and Druggist.*

† *Primeras Noticias acerca de la Vegetazion Americana*, por el Dr. D Miguel Colmeiro, Madrid: Saenz de Jubera Hno. Pta 1.00.

rid, and to Germany, whence an equally excellent pamphlet by Dr. Carl Hartwich* reaches us, entitled "The Importance of the Discovery of Amercia to Pharmacognosy."

Dr. Hartwich commences by calling attention to the fact that the desire of obtaining the aromatics and medicines of the East by a more expeditious route was one of the principal motives for Columbus's adventurous journey. The great discoverer himself never had any doubt that the islands he had laid bare to Europe formed part of Asia, and no sooner had he set foot on the Antilles that he imagined that the new plants he saw were the much-prized drugs of the East. Writing to his friends in Spain, in March, 1493, scarcely six months after his first landing, Columbus says: "I am bringing home with me rhubarb and an immense variety of precious aromatics, and my companions will undoubtedly discover more." And in another letter he again talks of "ruibarba y canela" (rhubarb and cinnamon) as among his most precious discoveries.

This reference to cinnamon is very characteristic. Even at the present day, Spain and other Latin countries are the largest consumers of Ceylon cinnamon, and in the fifteenth and sixteenth centuries that drug stood near the top of the treasures of materia medica. There is a story of one of the Nuremberg merchant-princes, whose character must have been a strange blend of the mediæval Medici and the ultra-modern Colonel North. This worthy, when receiving a visit of the Emperor Charles V., could think of no more suitable act to honor his guest, while at the same time demonstrating his own wealth, than to invite the Emperor to warm himself at a fire of burning cinnamon quill, into which he magnanimously cast the IOU's of his Imperial debtor. And the famous expedition of Gonzalo Pizarro, the younger brother of the conquerer of Peru, who penetrated across the Ecuadorian Andes into the primeval forest, and part of whose band emerged at the mouth of the Amazon on the other side of the continent, was mainly undertaken in quest of a fabled "country of cinnamon" which the Indians alleged to exist beyond the mountains. But cinnamon was only one of scores of valuable aromatics. Martin Behaim, one of the greatest map-makers and astronomers of his time, was ennobled, not for his services to science, however notable, but because he was the introducer of Melegueta pepper (Guinea grains) from the West coast of Africa. And it is not suprising that the discovery of the New World should have been followed by the appearance of quite a number of false cinnamons in the European markets. Sassafras-wood, which the Spaniards discovered in Florida in 1665, was one of the first of these, *Canella alba*, *Cortex Winterii*, and cascarilla, are others that still survive in our materia medica.

After Columbus's death, the Western world gradually acquired the consciousness that the new land of the setting sun was not Asia at all, but a new continent. Scientists discovered that the products of the New World were quite generic in their character, and began to devote themselves to the study of American plants from a know-nothing standpoint. Thanks to their efforts, American drugs are acclimatized, and their habits studied, in European gardens. Ginger was one of the first drugs to attract attention. In 1547, 22,000 cwt. of it were imported into Spain from the West Indies, and later on it was grown extensively in Brazil, from which it is no longer exported nowadays.

Roughly speaking, the number of drugs in our materia medica has been increased by one-fourth through the discovery of America, and the New World drugs comprise several of first-class importance, such as cinchona—the principal of all remedies—coca, jalap, ipecacuanha, jaborandi, senega, podophyllum, copaiba, etc. Moreover, the number of new drugs, natives of the Old World, which have attained a permanent position in our materia medica since 1492 is comparatively insignificant, whereas *ex America semper aliquid novi* has been the rule in therapy.

When the Spaniards destroyed the empire of Montezuma, which in many respects possessed a civilization much higher than that of its invaders, botanical gardens established by the Aztec rulers existed in many Mexican cities. When Humboldt visited Mexico in the first half of this century, traces of these gardens still remained. And, although the early history of many American drugs is enveloped in mysteries which we can hardly hope ever to penetrate, so much is certain—that the discovery of most of those which have been proved to possess any therapeutic value did not originate with the Spaniards, but with the Indians.

The first new drugs which Columbus beheld when he set foot upon American soil were probably tobacco and annatto. Annatto is described in the strange mixture of Spanish and Italian in which the discoverer's letters are written as "a dye resembling cinnabar, with which these people paint their bodies." Yet the Latin name of annatto, *Bixa Orellana*, does not perpetuate the memory of the great Genoese, but that of Francesco de Orellana, a mutinous captain in Gonzalo Pizarro's expedition, who was the first to sail down the Amazon river. Guaiacum, which the Spaniards found in San Domingo upon their first journey, suddenly obtained a *succes de scandale* as a specific against syphilis. It has now long been obsolete as an antisyphilitic, but its long vogue was one of the most extroardinary triumphs in the history of therapeutics.

To the sixteenth century—that in which the exploitation of the New World began to be undertaken in good earnest—we are indebted for many valuable American remedies. Coca really belongs to its predecessor, as it was first brought over in 1499 by Ortiz—not, strange to say, from Peru, its native country, but from the north coast of South America. The first accounts of jalap, like those of cinchona, are more or less legendary. The drug is beleived to have been brought over by Cortez *Conquistadores* after the fall of Mexico, and was then thought to be the long-searched-for rhubarb. For many years it was known as *Rhabarbarum americanum*, *Rhabarbarum album*, and so on. Sarsaparilla was also introduced as an antisyphilitic, and sassafras received a reputation for similar efficacy soon after it had turned out to be a sham cinnamon.

Ipecacuanha was a late but important new-comer. Its sponsor was Miguel Tristam, a Portuguese friar, who brought it from Brazil between 1570 and 1600, but the drug lay disregarded in medicine for over a hundred years. Then it was suddenly "boomed," and became so much run after and so dear that various substitutes and adulterants found their way into the market. Of these serpentaria has carved out a little career of its own, and is still in use.

It is hardly possible to believe that the New World conceals no more surprises within its vast solitudes. Our scientific knowledge of certain parts of Central America, of the vast region between the Amazon and the Carribean Sea, and the interior of Brazil, has advanced little since, 150 years ago, De la Condamine traversed the Amazonian forests. In the "Relation" of his travels, which that great explorer read at the French Academy after his return in 1745, he laid great stress upon the fact that in comparison with the wealth of unrecognized and imperfectly-known plants which he had met with in his travels, the South American thera-

**Die Bedeutung der Entdeckung von Amerika für die Droguenkunde*, von Dr. Carl Hartwich. Berlin: Julius Springer. 1892. Mk. 1.40.

peutic agents incorporated in European medicine were exceedingly few in number, and pointed out that vast additions to our materia medica might be looked for from those regions in future years. So far that prediction has hardly been fulfilled, but it is quite possible that before the century closes the increased accessibility of the interior of South America may have resulted in the doubling of our medicinal treasures from that continent.

The Perfume of Flowers.

The insufficient nature of the micro-chemical methods usually employed has so far prevented an exact knowledge being obtained of the manner in which the perfume of flowers is produced. M. E. Mesnard has applied to this class of researches a general method which has served in the localization of fixed oils. The section being placed in a drop of pure "glycerol" is arranged upon a round cover glass, which, being then inverted serves as a cover to a small chamber formed by cementing a glass ring to an object slide. In the interior of the chamber is fixed another ring of smaller diameter and somewhat less in height, thus forming with the first an annular space in which the reagent may be placed.

By adopting this arrangement the light passing through the central part of the cell is not modified. The inner ring will further serve to support a very small cover glass,upon which sections may be arranged which require to be exposed to the action of the reagent for some length of time, as occasionally happens in the case of the fixed oils. The reagent invariably employed is pure hydrochloric acid, the hydrated vapors from which are readily absorbed by the "glycerol." In this way by a gentle and easily regulated action, M. Mesnard obtains complete hydration of sections in the presence of an acid. When they have been exposed for a short time the essential oils appear as minute spherical drops of a fine transparent golden yellow. If the action be prolonged, the drops disappear, being transformed into diffusable products. The tendency of the globules is not seen in the fixed oils, so that it provides a means of distinguishing these two classes of products.

JASMINE.

In this flower the essence is situated in the row of epidermal cells on the upper side of the petals and sepals. Some also exist in the corresponding layers on the under surface, where the sepals are colored by a violet pigment. If the evolution of the cell contents in flowers at different stages of development be followed, at first nothing but chlorophyll is found in the tissue; tannin appears next, or rather intermediate glocusides, difficult to identify by means of the ordinary tests for these substances. These glocusides furnish the tannin and pigments of the lower surface of the sepals. The hydrochloric acid vapors distinguish all the tannoid compounds intermediate between the chlorophyll and tannin or pigments on the one hand, and between the chlorophyll and essential oil on the other.

The explanation of these facts seems to be as follows: Whereas, upon the lower surface of the bud, which was exposed to the action of light and the oxygen of the air, the tannoid compounds were slowly oxidized and gave rise to tannin, upon the upper surface which was hidden in the bud these agencies were inoperative, and the same compounds were [illegible] into essential oil, which oxidizes in contact [illegible] and produces the sensation of perfume.

ROSES.

The essence in roses is found in the palpilliform epidermal cells on the upper surface of the petals, scarcely ever on the lower side. The origin of the essence is easily recognized as being the same as in the preceding case. The delicacy and special odor of the essence furnished by each variety of roses seems to depend on the more or less complete transformation of the intermediate tannoid compounds derived from the chlorophyll.

VIOLETS.

The essence is here similarly situated. It is necessary, however, before applying reagents to the sections in this instance to immerse them in tungstate of sodium solution for some minutes in order to precipitate the tannin. The essential oil then appears bright red.

TUBEROSE.

In this case, the essential oil is found upon the lower surface of different parts of the perianth. The intermediate cells contain a fixed oil. Tannin is scarcely perceptible. Here, then, in consequence of the abundance of chlorophyll in the first place, of the almost complete absence of tannin, and also, probably, of the presence of fixed oils which has swept it towards the periphery, the essential oil is carried towards the lower surface. The intense odor of the tuberose only commences to reveal itself when the oil is enabled to form itself into small drops under the influence of the reagent.

ORANGE.

The reagent discloses the presence of several distinct essences in orange blossoms. First there is that of the secretory sacs, which occur on the lower surface of the petals or sepals. This is not essence of neroli, as is generally supposed, but an essence analogous to that of petit grain. By skillfully eliminating these sacs in an unopened bud, the agreeable odor of the flower is in no degree injured. Essential oil is still found in the epidermis of both surfaces of the petals, and likewise upon the periphery of the petaloid filaments in the stamens. By systematically preventing, in various ways, the liberation of the perfume in these different regions, M. Mesnard has been able to assure himself that the odor from the upper surface of the petals alone corresponds to the finest neroli. The odor of the flower, then, is a mixture.

The conclusions to be drawn from these researches are:

1. That the essential oil is generally found localized in the epidermal cells of the upper surface of the petals or sepals, though it may exist upon both surfaces, especially if the floral organs are completely hidden in the bud. The lower surface generally contains tannin or pigments derived from it.

2. The chlorophyll seems in every case, to give rise to the essential oil. This transformation is readily comprehended if it be admitted, as is generally understood, that the floral organs are but modified leaves found performing a new function. The chlorophyll being thus diverted from its original purpose, may be transformed into tannoid compounds or into essential oils.

3. The liberation of perfume in the flower only becomes perceptible when the essential oil is sufficiently freed from the intermediate compounds which have given rise to it. Its formation is to some extent in inverse proportion to that of the tannin and pigments in the flower. This will explain why flowers with green petals possess no odor, why white flowers or roses are most frequently odoriferous, why the *Compositæ* which are so rich in tannin have a characteristic disagreeable odor, and why the cultivated white lilac and forced roses acquire a very fine perfume.

Notes, Queries, and Answers.

Under this heading we shall, to the best of our ability, endeavor to answer such questions addressed to us as come within the scope of this journal, provided they are accompanied by the name and address of the writer. Unless special instructions to the contrary accompany the query, the initials of the correspondent will be quoted at the head of each answer.

When asking for the formula of an unusual, patented or proprietary compound, always accompany the query with any information you may already possess regarding the locality in which it is used, its uses, and reputed effect. When it can conveniently be done, send also a specimen of the label used on packages of the compound.

Soda Water Syrups.—C. C. T., Thor, Miss.

Simple Syrup:

Crushed loaf sugar	7 lbs.
Gelatin	½ ounce
Water, sufficient to make	1 gallon

Liquefy the gelatin with sufficient water; add the sugar and dissolve by agitation without further heat.

Orange Syrup:

Fisher's formula, as given in a recent number of the *Pharmaceutical Record*, is accounted particularly practical and furnishes a syrup of pronounced orange taste and flavor: first prepare a fluid extract of the peel as follows:

Sweet orange peel in moderately fine powder	16 ounces
Glycerin	3 fl. ounces
Alcohol	q. s.
Water	q. s.

Having mixed 14 fl. ounces alcohol with 2 fl. ounces glycerin the peel is moistened in a porcelain mortar with 12 fl. ozs. of this mixture. After standing 12 hours, percolation is proceeded with in the usual manner.

The percolation is finished with a mixture of 2 parts alcohol, and 1 part water. Reserving the first 14 ounces, add 1 fl. ounce of glycerin to the remainder, evaporate to 2½ fl. ounces, which mix with the reserved portion.

The juice of the peeled oranges is extracted by pressure and exposed in an enameled pot to a heat sufficient to bring it to a boil. This is afterward strained and sugar added to it in the proportion of 2 pounds of sugar to 1 pint of juice, which produces a so-called "concentrated syrup." A small quantity of boric and benzoic acids are added to prevent fermentation and keep the syrup from spoiling. For use, the concentrated syrup is reduced with plain syrup and sufficient extract of the peel added to give it the necessary flavor.

Blood orange:

Tincture orange*	2 fl. ozs.
Sol. citric acid (fifty per cent.)	2 fl. ozs.
Raspberry juice	8 fl. ozs.
Simple syrup, sufficient to make	1 gallon

Mix and strain through flannel.

Coffee Syrup:

Mocha coffee, Java coffee, aa	8 ozs.
Gelatin	¼ oz.
Boiling water	1 pint
Simple syrup, sufficient to make	1 gallon

On the finely ground coffee packed loosely in a tin percolator pour one pint of boiling hot water; allow to macerate for a few minutes, then start percolation, adding hot syrup until 1 gallon of finished product has been obtained.

Egg Cream:

Cream	4 fl. ozs.
Simple syrup	12 fl. ozs.
Extract vanilla	1 fl. dr.
Egg yolks	No. 4

Rub cream with yolk of egg until perfectly smooth; then add syrup and vanilla extract. Serve with soda, as other syrups, and before handing over sprinkle a little fine mixed spice on top to impart a flavor.

Cherry Cream:

Fresh juice of wild cherries	8 fl. ozs.
Fluid extract wild cherry	1 fl. oz.
Citric acid	1 dr.
Simple syrup, enough to make	4 pints.

Serve 1½ ounces of this syrup with 1 ounce of cream syrup and 8 ounces of carbonated water.

Worcestershire Sauce.—L. F., Bay City.—The following is an approved formula furnishing a sauce of piquant flavor and agreeable taste:

Malt vinegar	40 fl. ozs.
Allspice, powdered	℥ ii
Cloves, powdered	℥ i
Black pepper, powdered	℥ i
Mustard, powdered	℥ ii
Ginger, powdered	℥ i
Salt	℥ ii
Shallots	℥ ii
Sugar	℥ viii
Tamarinds	℥ iv
White wine	Oi
Curry powder	℥ i
Capsicum, powdered	℥ i

Simmer for an hour over a slow fire. A little caramel may be added to heighten the color..

Ginger Beer.—L. J., Baltimore, Md.—An old English recipe for the preparation of this beverage reads as follows:

Sugar	2 lbs.
Honey	2 lbs.
Lemons (finely sliced)	6
Jamaica ginger (bruised)	4 ozs.
Whites of eggs	3
Cream of tartar	2 ozs.
Brewer's yeast	1 oz.

Put the sugar and honey in a large earthernware pan and work in the lemons, ginger and cream of tartar; slowly add, while stirring with a wooden spatula, four gallons of boiling water; then add the previously well beaten white of eggs, and when the mixture is cold add the yeast, let work for two or three days in a moderately warm place, and then bottle.

Bay Rum.—C. Bros., Brooklyn, N. Y.—The following recipe is for bay rum, which is a close representation of the imported article and costs less to produce. As a rule the No. 2 grade of bay rum made for retailing to hairdressers costs to manufacture about $1.40 per gallon. The formula here given affords an article of the first grade at a cost of 98 cents.

Bay Rum:

Oil bay, Oil pimento, Oil bergamot, aa	20 minims
Oil clove	3 minims
Alcohol	2 pints
Jamaica rum	1 pint
Magnesium carbonate	½ ounce
Water, enough to make	1 gallon

Tincture curcuma and chlorophyll, of each sufficient to impart a light yellowish green color.

Rub the oils with the magnesia in a large mortar, add the alcohol gradually and transfer to a gallon bottle; shake well and add the rum and then the water; let stand two hours, at the expiration of which time shake thoroughly and filter.

* Oil of sweet orange, 1 fl. oz.
Peel of 2 oranges.
Alcohol,
Mix and filter.

Syrup of Figs.—L. F. B., Covington, Ky.—We are not aware that the manufacturers of "California Fig Syrup" make any claim that their preparation is a true syrup of the fruit. It is not supposed to be more than a carefully prepared dathartic with aromatics. A syrup of excellent appearance and therapeutic value can be obtained from the formula given below:

Fl. ext. cascara sagrada (tasteless)	1½ fl. ounces
Fl. ext. Oregon grape root	3 drams
Grd. senna, No. 20, powder	6 drams
Prunes, Figs ..ää	2 oz av.
Oil of fennel, Oil of cinnamon ää	10 min.
Oil of cloves	5 min.
Sugar	3 ounces
Water, enough to make	1 pint

Chop the figs and prunes, without stones, to a fine hash, mix with senna and steep in 12 ounces water for three hours, adding sufficient to replace the water of evaporation. Strain through a No. 40 wire sieve. To this liquid add the sugar and dissolve. Add the fluid extracts and oils, make up to one pint with hot water, which has been poured over the fruit on sieve.

Some may prefer to leave out the oils and add instead

Fl. ext. licorice	fl ʒ iv

Others may prefer instead of the licorice,

Powdered nutmeg	ʒ iij

Ayer's Cherry Pectoral.—H. P., Brooklyn, N. Y.—The following furnishes a preparation which resembles the original very closely:

Syrup pruni virg.	fl. ʒ vi
Syrup scillæ	fl. ʒ iii
Tinct. sanguinariæ	fl. ʒ ii
Sp. aether. nit.	fl. ʒ ii
Vin. antimonii	fl. ʒ iii
Tinct ipecac	fl. ʒ iii
Morphin acetatis	gr. ii
Syrupi	fl. ʒ iss

Mix and add sufficient spirit of bitter almond (10 %) to flavor. About 20 drops will be necessary to impart the proper degree of flavor.

Fly Papers.—C. L. Galesburg, Ill.—The use of poison fly papers is apparently giving way to that of sticky papers which latter possess the advantage of greater cleanliness, the dead flies not falling about the rooms. The fly papers which depend on cobalt or other mineral substance for their poisonous qualities have the added disadvantage of having a toxic effect on animals as well as on insects. We give below several formulas of different kinds from approved sources.

COBALT FLY PAPER.

Vomacka gives the following :

	Parts.
Quassia chips	150
Chloride of cobalt	10
Tartar emetic	2
Tincture of long pepper (1 to 4 of proof spirit)	80
Water	400

ARSENIC FLY PAPER.

Make a solution of two parts arseniate of potassium or arseniate of sodium, 4 parts white sugar, 40 parts water. Saturate stout unsized paper in this solution then dry. To use the paper, moisten it with water, and place in saucers. Great care should be taken with this paper, as it is poisonous.

BICHROMATE FLY PAPER.

	Parts.
Potassium bichromate	10
Sugar	30
Volatile oil of pepper	2
Alcohol	20
Water	120

Dissolve the solids in liquids. Soak absorbent paper in this liquid and dry

QUASSIA FLY PAPER.

Quassia chips	½ lb
Sugar	½ lb
Water	a sufficient quantity

Pour one quart of water over the quassia chips, allow to stand over night, strain and boil the liquid down to one pint, then boil the chips with a pint of water until half a pint remains. Then mix well together, allow to stand for several days, filter, soak strips of absorbent paper in the filtered liquid and dry the slips.

STICKY FLY PAPER.

The various manufacturers have brought the art of making sticky fly paper to such a point of excellence and of cheapness that it is difficult for the maker in a small way to compete with them, though a good many pharmacists still make their own supplies. A prime consideration in success in this direction is the paper used. We believe that the use of parchment in this connection has been patented. No matter what is the character of the paper selected it should be soaked in a strong solution of alum and dried before the varnish or gum is applied. We give below a variety of combinations which have been proposed from time to time. The proportion of liquid to solids in each formula is subject to some variation, as what would be about the right thing for a high northern latitude would be too soft for use in tropical or subtropical localities.

I

	Parts.
Resin	9
Rape-seed oil	4

II

	Parts.
Resin	8
Turpentine	4
Rape-seed oil	4
Honey	½

III

Resin	1 lb.
Molasses	3½ ozs.
Linseed oil	3½ ozs.

Boil until as thick as required.

Pasta Mack.—U. T., San Francisco, Cal.—The following is used to produce something like the original :

Sodium bicarbonate	15 drachms
Tartaric acid	12½ drachms
Starch flour	21 drachms
Sweet almond oil	9 drachms
Oil of rose	3 drops
Oil of neroly	1 drop

Mix the acid and the bicarbonate separately with portions of the starch flour, then mix together, and add the oils. Of this paste one teaspoonful is sufficient to perfume 12 gallons of water. It is used for the bath.

Registration in New York—A. B., New York.—Persons possessing the license of the State board of pharmacy are allowed to register without examination in the city and county of New York by courtesy of the city board. Fuller particulars can be obtained from the secretary, Wm. Balser, M.D., 218 East 13th street, New York City.

Castor Oil Emulsion.—W. G. B., New York City. The formula official in the British Pharmacopœia affords an excellent emulsion providing the directions for its preparation are modified as given below. The B. P. formula contains 3 parts of oil in every 8 parts of emulsion as follows : Castor oil 180 fl. parts, oil of lemon 5 fl. parts, oil of cloves 1 fl. part, syrup 45 fl. parts, sol. potash 30 fl. parts, orange-flower water to make 480 fl. parts.

Mix the oils in the mortar, and add the syrup ; mix the solution of potash with the orange-flower water, and add gradually to the oils and syrup.

Is Insect Powder Poisonous.—J. P. M., Columbus, Miss.—While insect powder is generally considered and spoken of as being non-poisonous this is not strictly correct, as ingestion of any considerable quantity is apt to lead to serious if not absolutely dangerous results. Quite recently a case occurred in Germany in which severe poisoning characterized by marked inflammation of the stomach ensued as a result of inadvertly swallowing a lot of insect powder. The patient recovered. We believe that similar cases have also been reported in this country.

Ale and Beef Peptonoids.—R. A. L., New York City.—We are unable to state whether this article possesses any more value than the various tonics of "good" "better" and "best" composition with which the market is now flooded. The majority of such preparations are good only as beer.

Book on Practical Operative Chemistry.—E. W. S., Columbus, O. The rapid advances made of recent years in the various branches of technical chemistry have so widened the field that it is practically impossible to cover the whole ground thoroughly and still exhaustively in one treatise. Each general division of operative chemistry is treated of separately by different works and each particular subdivision is as a rule also well cared for. Probably the most comprehensive modern work in English is the "Dictionary of Applied Chemistry," which is being issued to take the place of the technical portions of the old Watts' "Dictionary of Chemisty."

In its especial field Sadtler's "Industrial Organic Chemistry" is a recent and standard work.

To answer the query satisfactorily it would be necessary to know more in detail as to the particular field of operative chemistry in which information is wanted.

Soaps by the Cold Process.*

PURE ALMOND OIL SOAP.

Saponify the sweet almond oil soap with a weak lye and then separate out with a salt solution of 20° B. Of the oil thus purified take 100 parts and add, stirring briskly, 34 parts of soda-lye and 17 parts of potash-lye of 38° B at a temperature of 25° C. Prepare the raw soap mixture in the morning, stir energetically for an hour, then leave to settle, stirring for a few minutes every hour. Leave the container overnight in the warm room and again beat up briskly next morning. The soap will then soon begin to thicken and may be poured out into the forms. Saponification continues after a further lapse of 48 hours, but the mass should be kept warm and hardens after a period of from 36 to 48 hours. For cosmetic preparations, such as Pomade Hongroise, this almond oil soap forms a complete substitute for Castile soap. In equal parts of distilled water it dissolves as a beautiful transparent mucilage. As a toilet soap it is most agreeable to the skin.

ALMOND OIL AS AN ADDITION TO COCOANUT OIL.

Three parts of cocoanut oil and one part of sweet almond oil, saponified with a soda-lye of 38° B., produce an excellent almond-cocoanut soap lathering smoothly, and acting very pleasantly upon the skin. In washing, the soap shows the characteristics of a good fat soap, viz., smoothness and slight frothiness.

ALMOND OIL SHAVING-SOAP BY THE COLD PROCESS.

Saponify 85 parts of tallow and 15 parts of sweet almond oil at a temperature of 45 to 46° C. with 25 parts of soda-lye and 25 parts of potash-lye (without cocoanut oil).

Saponification takes place early. The soap produced gives a brilliant creamy lather, possesses a beautiful white color, and the bars do not shrink, but preserve their straight edges. The soap cuts beautifully.

*Adapted from Schimmel's *Berichte*.

Bibliography.

PSYCOPATHIA SEXUALIS.—With Especial Reference to Contrary Sexual Instinct: A Medico-Legal Study. By Dr. R. von Krafft-Ebing, Professor of Psychiatry and Neurology, University of Vienna. Authorized translation of the Seventh Enlarged and Revised German Edition, by Charles Gilbert Chaddock, M. D Professor of Nervous and Mental Diseases, Marion Sims College of Medicines, St. Louis, etc., etc. Philadelphia and London: The F. A. Davis Co., 1893.

The reproduction of species is the chief end of existence as viewed from the naturalist's stand-point, hence all matters affecting this phase of life are naturally of absorbing interest. This fact is tacitly recognized in the miscellaneous literature of the world which for its theme has ever the manifestations of the sexual instinct—idealized and elevated by Sir Walter Scott; broadly, strongly, overpoweringly portrayed by Wagner, or coarsely, repulsively and brutally depicted by Zola and his school of realists.

Even the abnormal developments of the vita sexualis have attracted the attention of modern novelists as, is evidenced in "Mme. Ma Femme," "Mlle. Giraud," and in "Venus in Furs."

While there has been some careful study of the subject of abnormal developments of the sexual instinct made by Dr. G. Frank Lydston and one or two other Americans, and some reference made to the subject in various medical works, such for instance as Hammond's "Impotence in the Male and its Causes," these references in English literature have for the most part been merely incidental to some other main topic and have not taken the shape of a comprehensive comparative study. There is, therefore, a field for the work before us and this field it fills most admirably.

The author brings to the work a profound knowledge of psychiatry and neurology and careful, serious and thorough habits of study which enable him to draw his deductions clearly and logically.

Probably no one fact stands out more clearly in all the case-histories set forth in the work than does the force of heredity in transmitting neuropathic tendencies.

The work offers fruitful suggestions to the student of medical jurisprudence, which must prove of great value as an aid in arriving at a true comprehension of the reasons for many crimes, the commission of which indicates that the criminal is at least on the border-land of insanity.

The translator has rendered the book into excellent English, a by no means light task in view of the nature of its peculiar character.

An Old Pharmacy.—The city pharmacy in Schweinfurt, Germany, has just changed hands. This business dates from 1412, and is believed to be the oldest in the empire. It was originally established by the city of Schweinfurt, which, in the year named, voted for the purpose 5,000 florins, an unprecedentedly large amount for those times. The first pharmacy in Germany was founded at Nuremberg in 1404.

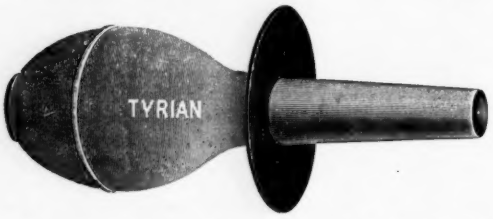
New Inventions and Novelties.

Under this heading we will be pleased to insert, free of charge, a description and illustration of novelties and new inventions of interest to the drug trade.

Inventors or manufacturers are invited to send in descriptions, specimens and illustrations of anything which they may have suitable for mention in this column.

A New Female Syringe.

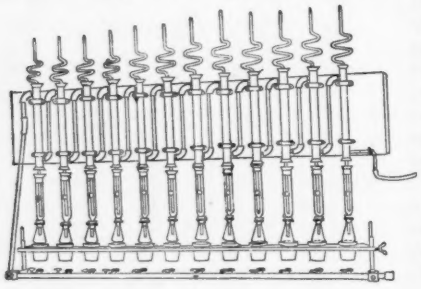
The accompanying illustration shows a new departure in female syringes or rather shows merely the shape of the instrument which is not particularly novel, the novelty consisting of the fact that it is made entirely of soft rubber with a removable hard rubber shield. The great advantages possessed by having the tube of soft rubber are readily apparent, while as the syringe is in one piece without valves or fittings it cannot possibly get out of order.



Apparatus for Fat Extraction.

From the Journal of *Analytical and Applied Chemistry.*

In the apparatus presented in the accompanying illustration, the well known principle of the continuous extracter is adopted; originality, therefore, is confined to the details of the application, whereby compactness and convenience in handling are secured. The volatilization of the ether in the flask, to subsequently condense above and pass through the sample in the inner tube, carrying the fat with it into the flask again, needs no description. A main feature is the arrangement of the cups in which the flasks are immersed in water and of the burners by means of which the water is heated. All of these are fastened together, and the distance of the lights from the bottoms of the cups is adjustable, but when once adjusted the whole frame of lights and cups may be raised or lowered together on the supports at the ends.



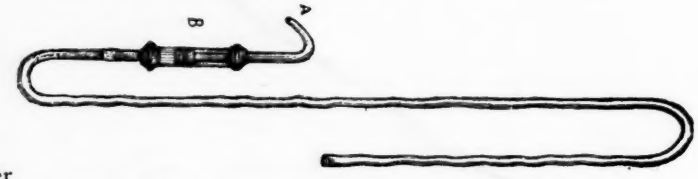
The condensers are of iron piping one and one-fourth inches in diameter, closed at the ends with rubber stoppers perforated to admit the passage of the glass tubes; they are all connected together by iron piping of three-quarters of an inch diameter. A single stream of water effects the cooling.

With the exception of the rubber stoppers in the condensers, corks are used as being in the end the most satisfactory. If carefully selected they will last several seasons without replacing. If the inner tubes are for the extraction of fodders, a tapering form at the lower ends will effectually prevent the rising of the substance during the extraction. By the substitution of siphon tubes, the apparatus is adapted for the determination of fat in milk by Adams' method, in which case the angles at the top of the condensers are efficient in preventing the loss of ether.

The apparatus is but eight inches deep, stands close up to the wall and thus leaves considerable working space in front upon the table upon which it is placed.

A New Form of Siphon.

The accompanying illustration shows a form of siphon which has recently been patented in Germany (D. R. Patent 62,985). To put it into operation the spout *A* is closed with the finger and at the same time pulling it upward in the barrel *B*. This causes the liquid to flow up into the siphon filling the barrel *B*. The barrel is then slowly pressed down and the liquid then flows out of *A*. By raising the delivery tube *A* to the level of the liquid in the higher receptacle the flow can be stopped.



A New Soda Counter Requisite.

One of the neatest novelties for the soda counter introduced this season is shown in the accompanying illustration. It consists of a metal cup with cover, as will be seen, the essentially novel feature of which is what is termed the egg breaker, shown in the interior of the removed cover in the illustration. This "breaker" is composed of a central axle, as it were, to which are attached transverse bars or spokes, each of which is triangular in shape. When shaking the egg lemonade or any egg drink, these bars or spokes serve to break up the yolk and thoroughly mix the drink, making it light and creamy. This "breaker" or mixer may be removed entirely by simply unscrewing it.

The cover inside the top cap is perforated to act as a strainer.

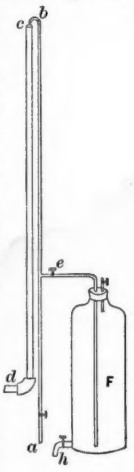
The top cap is kept in place when the shaker is in use, and when the contents are well shaken the cap is removed and the contents poured out through the perforations without removing the cover itself.

The exterior of the whole is nickel plated, making it a handsome as well as useful addition to the soda counter requisites. These lemonade shakers have just been put on the market by Whitall, Tatum & Co., Philadelphia and New York.

Gravity Pressure for Wash Bottle.

The accompanying illustration, for which we are indebted to the *Journal of Analytical and Applied Chemistry*, shows a pressure arrangement for a washing bottle designed to furnish a steady flow without any care after it is once adjusted.

The tube *a b* is kept full and gently overflowing with water by connection at *a* with the city supply, the excess being conducted to the drain through the pipe *c d*. When the cock *e* is opened the tube *a b* tends to empty itself into the large bottle F, which at the start is full of air. The air is consequently under pressure to a degree determined by the height of the column of water in *a b* and the pressure under which it is flowing out at *b*. This compressed air is conducted by one-fourth inch lead tubing to various convenient parts of the laboratory where any bottle with the customary short and long tubes may be attached by its short tube, and the wash water delivered through a hose as before described.



The two pipes may be conveniently fastened on the wall near the sink, while the bottle may have a shelf provided or even stand upon the floor. The size of this bottle depends upon the amount of work to be done. With no leaks of air throughout the apparatus, it need be but a little larger than the amount of wash water to be handled. In this laboratory it is sufficient for a half day's continuous using, after which it is allowed to drain into the sink by the cock *h* at the bottom. Pressure is thus relieved when the apparatus is not in use, while the bottles containing the wash solutions, being near at hand, may be disconnected and stoppered.

The Bates Numbering Machines.

Among the last papers written upon the subject of the most approved methods for conducting and systematizing prescription departments, is the following article by the late Professor P. W. Bedford, in which reference is made to the new Bates Automatic Numbering Machine—dial setting movement.

CUT HALF ACTUAL SIZE.
STYLE A

12345

"The numbering of a prescription and label must be uniform. In our experience we have seen many errors arise from lack of such uniformity. It may be caused by not reading the last numbers correctly, by conversation, from thoughtlessness or some other reason; but it happens. We have known such an error to cost an outlay of $2,000; many others were less serious; a few no money could atone for. To prevent such accidents, that are perhaps more likely to occur with assistants than the proprietor, procure a numbering machine."

The "Bates" machines have many advantages which are of especial importance to the prescription druggist, among which the manufacturers call attention to the following:

Entirely Automatic. Every figure disk changes automatically in its consecutive order, from 1 to the full numeral capacity of the machine—a feature possessed by *no other* hand numbering machine. This cannot therefore be classed with the so-styled "Automatic" Numbering machines which are self-changing to 999 only, beyond which the operator must move the numbering disks around by hand, as it becomes necessary for them to change in the course of the advancement of the number. Machines so constructed are fatally defective and obviously must be condemned as inadequate and most unreliable.

Simplicity of Operation. The changing from consecutive to duplicate and continuous numbering is effected by the mere moving of the pointer in front of the dial. This is so easily understood that the most unskilled and obtuse clerk or boy can operate the machine at once without training or experience.

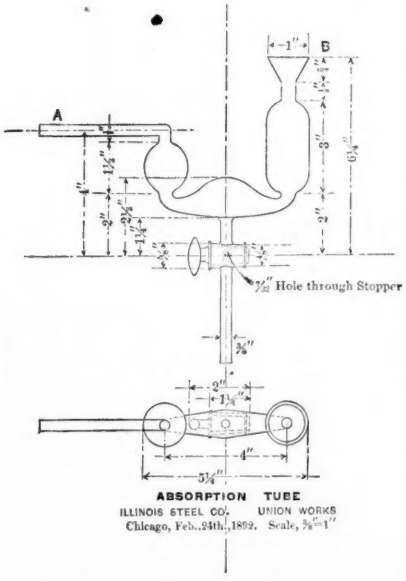
Noiseless. It works with very slight friction and therefore without noise.

Improved Self Inking Apparatus. The figures receive ink automatically from a thick felt pad which is practically indestructible.

The ink which is furnished with the machines is indelible and is not affected by chemicals which frequently entirely remove and often partially obliterate figures written with writing fluid. By affixing a small round block of wood (the size of the inside of the smallest pill box and about an inch thick) to the top of the prescription desk, it is perfectly feasible to number all labels, including those upon boxes. The makers are the Bates Mfg. Co., Edison Building, Broad St., New York.

Absorption Bulb For Sulphur Determinations.

The bulb shown in the drawing has been in use in the laboratory of J. Kenneth Mackenzie for some time, with good results, in the determination of sulphur in iron and steel by evolution as H_2S. By its use he avoids the tedious disconnecting of the absorbing bulb from its stand after each analysis. (*Jour. A. & A. chem.*) Where fifty or one hundred determinations of sulphur are made daily, the saving of time by the use of this bulb is quite material. The bulb is permanently clamped to an upright rod, screwed down on the work table. When in use it is joined at A, with the usual safety attachment to the flask containing the drillings of the sample under examination. The absorbing liquid, bromine sodium hydroxide, etc., is introduced through the open end of the bulb at B, and after the complete absorption of the H_2S gas has taken place, the stop-cock is opened and the liquid is run into a beaker or porcelain casserole, for subsequent treatment gravimetrically or by titration. The bulb is washed out three times, water introduced at B and run out through the stop cock as before.



ABSORPTION TUBE
ILLINOIS STEEL CO. UNION WORKS
Chicago, Feb. 24th, 1892. Scale, ⅜"=1"

In 1889 there were 157 drug stores iu Washington; now there are 338, representing probably 800 pharmacists.

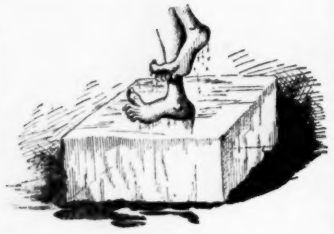
Written for the American Druggist and Pharmaceutical Record.

TIPS ON ADVERTISING. VII.

Comments on the Drug Business—Its Management and Advertising.

By Wm. F. A. Weber,
of Cambridgeport, Mass.

You have a drug store. It may be one newly started a new purchase, or an old stand and you a long time in it. In either case I venture to say that by far the larger proportion of my readers are dissatisfied with their business. Why? What's the matter?



KEEP COOL

If you have to stand on ice. If you do not want to do that, drink soda. Drink our soda. Best soda in town. Drink soda and try our perfumes. Come in.

EVANS & HOWARD,
COLUMBUS, GA.

In the first place too many stores. Again, the tendency of the people is to buy where buying is the cheapest. You see the crowd going to the advertised cut prices, or the department store, and returning to your store with purchases in hand, patronizing you by buying postage stamps. I make this strong assertion: That the cut price and the department stores have made, and do daily make, dishonest druggists—dishonest in their convictions and representations. The proprietors require clerks whose ability must consist in selling not what is called for, but what will pay best. Such cut prices and department stores have also brought the drug business into bad repute, especially in no license towns and cities. They have forced many a man, whose inclination both in principle and interest is antagonistic to such a step, to become a retail liquor dealer, and in public opinion the exception is the rule.

At the risk of being called a crank—all druggists are on some subject—I deem the essential requisite for the druggist is to get the confidence of the public, and to keep a temperance drug store. To never sell liquor by the glass. Have no particular friend A or B, who after a while will bring in C, and so on down, who have access to your back room, to get a drink.

Keep your store always neat and attractive. You cannot clean too much. Have order, even to primness. Keep your bottles evenly spaced and at front dress. Keep the silver work always polished. Abhor dust. If you have a soda fountain, keep it *always in order*. If not using it in Winter, keep the silver bright. The dirty black silver of an unused fountain gives an air of inattention and depression of business. Economize in little things. Economy is not meanness. Prevent waste. Never try to economize in the quality of the drugs you dispense or sell. Never misrepresent an article; sell it for just what it is. Make the public say and think they can rely on what you say and sell them. Better throw away a package of old and worthless herbs and drugs and say it's worthless than sell it because you have it on hand. It's not waste to condemn it, it's honest, and has a higher standard than mere policy. Never enter into a controversy with a customer in your store. Keep your temper under aggravating circumstances. Be amiable and polite always. Sell a postage stamp as politely and as pleasantly as any other article. A "thank you" never comes amiss, and should be the rule upon the receipt of money from every customer.

If in doubt if a customer is being attended to, approach him or her, with, "Can I serve you?" "Dan I help you?" "Are you being attended to?" "Waited upon?" or some similar expression, and not as I have so often heard, ask, "What do you want?"

From the condition of the business as before stated it has become essential to put up, in a neat manner, as many remedies and preparations of your own as you can. This you do in self defence. The selling thereof depends largely on tact. Do not force them on a customer in an obtrusive manner, when something else is called for.

A KNOTTY QUESTION

Is the question of how to buy drugs to the best advantage. A large trade indicates fresh goods. We are doing a brisk business. Our stock is fresh. Lumborg's perfumes, 35 cents per ounce. This week only.

PARKER & HOWARD,
STAMFORD.

While the predominant idea with you must be the drug business, it is impossible to wholly depend upon that part for your business. The druggist may be and is obliged to keep what will sell. What his customers not only ask for, but see. In the arrangement of

our showcases and shelves, mark the prices of goods in neat, plain figures that can be seen by the seated, waiting customer. Most persons, ladies especially, like to know just what the price of an article is. They would not ask, but seeing the price know at once if it suits them and their means.

How many of my readers have purchased and made a handsome window display of perfume cases and toilet articles during the holiday season, with a small tag, often bearing a private mark only on them, and when the season is over packing most of them away for another year. No profit, and yet to be paid for. If you intend to deal in such goods, place your prices in such size that all can read, and you will get a larger share of patronage. Other business is conducted differently than 30 years ago, why not yours?

In dressing your windows, seek as much as possible to place in them a quantity of any one thing, your own preparations taking precedence. Tell your story in plain readable show cards and mark all prices in plain figures that will quickly catch the eye. Change the window dressing in style, and clean the windows at least once a week. They may not look so attractive,

A Song of Summer.

In the gloaming, oh my darling,
The mosquito's hum is low,
And the aggravating creatures
From our dwellings will not go.

We must find surcease from sorrow,
We must drive the creatures out,
We must use Pratt's insect powder,
Then they will go up the spout.

Get it at Pratt's Drug Store,
Eagle St., West Adams.

but it sells the goods. Do not think you get the best of the bargain when you place in the windows a large theater sign in exchange for a free pass. You pay very dear for admittance to the show. Your window space is, or you should make it, too valuable to so use it. If competition is sharp, and your window space admits it, present some article as a leader. Show it in quantity, sell it at a small profit, attract attention to it in some novel manner to get the people into your store. If you advertise it, either by newspaper, circular, show card or sign, do it out of the common way; give people something to talk about. Too much conservatism will let the business go to your neighbor or department store. One example of this. A druggist once put up an excellent quality of petroleum jelly in two ounce bottles, keeping a large display in the window, with this sign:

Some call it vaseline.
Others call it cosmoline
But we call it pure petroleum jelly and sell it at
5 cents a bottle.

Another sign with a long list of what it was good for,

Grease your shoes,
Oil your hair,
Stop the creaking door, etc.

Result, people read it, bought it, came again for other goods, and the sales were 15,000 bottles in 15 months and at a good profit.

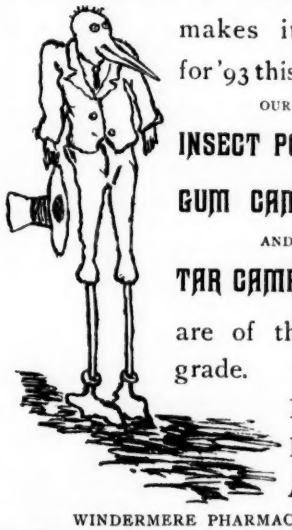
I come now to soda water, an essential and profitable part of the business if properly conducted. It seems strange that when a druggist invests in expensive apparatus he does not make his syrup and serve soda in the very best possible manner. Why seek to save a cent and lose a dollar? The soda fountain and its surroundings must be attractive, it must be kept clean, the silver must be kept bright, the used and empty glasses promptly removed and cleaned, the counter kept free from slops. Make it inviting, furnish the best of everything and serve it cold. See that the attendant is neat in person, the glasses clean, etc. Seek to have the people know you serve the best soda in town.

A poorly lighted store is poor economy. Let your light shine so that the passer-by is attracted. It draws custom. A dimly lighted one depresses and gives a sort of run down kind of impression. The exception to this may be on Sunday evening. Also, during that day the curtains should be kept down or partly down. You thereby show some deference to public opinion in regard to the day.

Clerks are an important item. Many a man has ignorantly and unjustly suffered in the opinion of some one from some words, treatment or manner of his clerk. First set the example in your conduct and manner of dealing with a customer. Remember that you were once a clerk. Do not show imperiousness or irritability. Treat them courteously. If there is occasion for reproof or suggestion do not do so before a customer. Seek and hold pleasant relations with your clerks.

Designed by Ralph Gable, Salem, N. J.

INSECT LIFE



makes its bow for '93 this month.

OUR

INSECT POWDER,

GUM CAMPHOR

AND

TAR CAMPHOR.

are of the best grade.

Fair Prices Always.

WINDERMERE PHARMACY,
Wm. J. Quencer, Proprietor. 37th St. and 9th Ave.

One word about physicians. All druggists have or should have a pride in their business, and like a good showing on their prescription file. They naturally seek to influence the favor of the physician to endorse and send his patient to his store. I have had dealings with very many physicians, many of high professional standing. My experience is that they are about like the rest of us. A dollar is always worth one hundred cents to them. Between druggist and physician there should be reciprocity. If he favors you, favor him. Do not seek to make money out of the doctor. Be generous with him. I am not advocating any percentage business. I denounce it; but be generous with him. He likes it. Use tact, and understand him.

News and Notes.

The International Pharmaceutical Congress.

ITS OBJECTS, ORGANIZATION AND PROGRAMME.

1. The International Pharmaceutical Congress called to convene in Chicago, August 21, 1893, during the progress of the World's Columbian Exposition, will be the seventh in the series of International Pharmaceutical Congresses, and the first held in America.

In addition to the invitation extended by the American Pharmaceutical Association to the International Pharmaceutical Congress to hold its next meeting in 1893 in Chicago, a proposal was also made by the World's Congress Auxiliary of the World's Columbian Exposition to the pharmacists of the world, inviting them to participate in the Columbian commemmoration by a convention similar in scope to the other world's congresses to be held at the same time and place, the proceedings of which will, in part, be devoted to addresses and papers of a general and popular character, including brief reviews of the progress made since the days of Columbus. It was, however, deemed desirable that there shall be but one pharmaceutical congress held this year, and that the scope and objects of the proposed World's Congress of Pharmacists and those of the Seventh International Pharmaceutical Congress be merged, and to attain this end the World's Congress Auxiliary accordingly proposed that the programme of the International Pharmaceutical Congress at Chicago include addresses and papers of a historical nature, and afford opportunity for the presentation of such other topics of a general interest as may, in the judgment of the Committee on Arrangements, be appropriate to the occasion. This proposal having been agreed to, the International Pharmaceutical Congress will be the only world's congress of pharmacists held in Chicago during the Exposition season.

The general scope and objects of the International Pharmaceutical Congress will be to stimulate pharmaceutical progress, to discuss the status of pharmacists and promote an intelligent appreciation of the work they do, and to consider matters and measures affecting the further advancement of pharmacy and a nearer approach to international agreement in education and practice.

2. A Committee on the International Pharmaceutical Congress has been appointed by the American Pharmaceutical Association to arrange the preliminaries. This Committee on Arrangements consists of Oscar Oldberg, Chicago, Chairman; N. Gray Bartlett, Chicago; C. Lewis Diehl, Louisville, Ky.; D. R. Dyche, Chicago; Albert E. Ebert, Chicago; C. T. P. Fennel, Cincinnati, Ohio; S. M. Good, St. Louis, Mo.; C. S. N. Hallberg, Chicago; L. C. Hogan, Chicago; J. N. Hurty, Indianapolis, Ind.; J. Kochan, Denver, Col.; E. Kremers, Madison, Wis.; A. L. Metz, New Orleans, La.; Charles Mohr, Mobile, Ala.; E. L. Patch, Boston, Mass.; A. B. Prescott, Ann Arbor, Mich.; Charles Rice, New York; E. H. Sargent, Chicago; William Saunders, Ottawa, Can.; L. E. Sayre, Lawrence, Kan.; William M. Searby, San Francisco, Cal.; William Simon, Baltimore, Md.; William Simpson, Raleigh, N. C.; William S. Thompson, Washington, D. C.; together with Joseph P. Remington, Philadelphia, Pa., President of the American Pharmaceutical Association, and John M. Maisch, Philadelphia, Pa., Permanent Secretary of the American Pharmaceutical Association.

All who intend to participate in the Congress or to be represented or present in its meetings, and all invited guests, are requested to communicate in advance, and, if possible before July 1, their names and addresses to Oscar Oldberg, Chairman of the Committee, 2421 Dearborn street, Chicago.

All papers, reports, and communications to be read at the Congress, will, as far as possible, be printed in advance, in order that copies may be distributed at the meeting. For this purpose, such papers, reports, and communications must be placed in the hands of the Permanent Secretary of the American Pharmaceutical Association, John M. Maisch, 145 N. 10th street, Philadelphia, before July 20. If received later, the printing in advance of the meeting cannot be promised.

3. The Congress will be constituted of delegates accredited for that purpose by the governments of the different countries, the pharmaceutical societies and examining boards, the colleges and schools of pharmacy, the pharmaceutical departments of universities, and the national pharmacopœial committee or commissions, respectively, each of which bodies will be entitled to be represented by three delegates.

4. Special invitations are extended to pharmaceutical teachers, authors, leaders in the pharmaceutical profession, and pharmacists generally, to seats in the Congress.

5. When a vote shall be taken upon any question upon which the yeas and nays shall be called, only duly accredited delegates shall be entitled to vote.

6. The officers of the Congress shall consist of a president, vice-presidents, a secretary, and three vice-secretaries. The committee on arrangements shall act as a nominating committee, and shall nominate the officers by ballot. The number of vice-presidents to be nominated shall be determined by the nominating committee.

7. The first session of the Congress will be opened at 9 o'clock a. m., on Monday, the 21st day of August, 1893, in the Memorial Art Palace, Chicago, in which commodious halls and accommodations have been placed at the disposal of the Congress through the courtesy of the World's Congress Auxiliary of the World's Columbian Exposition.

The Congress will be opened with appropriate ceremonies, official addresses of welcome, and a report of the Committee on Arrangements. A temporary organization will then be effected and a Committee on Credentials appointed.

Following this will come the adoption of regulations for the government of the Congress and its proceedings, and the reception of official communications and invitations.

The Nominating Committee will then report the nominations for offices, after which the election of officers will follow.

8. The proceedings of the Congress will be conducted in the English language, but when participants in discussions speak in German, French, Spanish or Swedish, interpreters will translate these languages into English. Addresses, papers or communications printed or published by the Congress, will be published in English, German, French and Spanish.

The publication of the Proceedings will be intrusted to a special committee, to be appointed by the President of the Congress.

To defray the expenses attendant upon such publication, each member from the United States, or member of the American Pharmaceutical Association who may take part in the Congress will be required to pay the sum of five dollars; no assessment to be made upon other members or visitors.

9. To facilitate the conduct of the proceedings of the Congress, the Committee on Arrangements will classify the business according to the subjects, and the Congress will for that purpose be arranged into four sections, as follows:

Section I. Historical and Ethical Pharmacy.

Section II. Pharmaceutical Education and Legislation.

Section III. Pharmacopœial Matters.

Section IV. General Section, embracing pharmaceutical questions and subjects not assignable to any of the three preceding sections.

The order of business after the election of officers will be in conformity with this classification.

SUBJECTS PROPOSED FOR PAPERS, REPORTS AND DISCUSSION.

SECTION I.—HISTORICAL AND ETHICAL PHARMACY.

1. The condition of pharmacy four centuries ago as contrasted with its present status.

2. The history of pharmacy and pharmaceutical institutions in the United States.

3. The ethics of the practice of pharmacy, and the mutual relations between physician and pharmacist and between pharmacists and the public.

4. The influence exerted upon the practice of pharmacy by the introduction of chemicals and other medicinal substances controlled or limited by patents, copyrights, trade-marks, or other legal restrictions, but which are commonly ordered by physicians in their prescriptions.

Should such limitations as foster monopoly in the manufacture and sale of such products be removed in the interest of the public good?

5. The relations of pharmacists to public sanitation.

6. Statistics of the present number of pharmacies in proportion to population in various countries, and of imports and exports of crude drugs, medicinal chemicals, and pharmaceutical preparations during the last half century.

SECTION II.—PHARMACEUTICAL EDUCATION AND LEGISLATION.

1. Statistics giving the number of schools or colleges of pharmacy in each country, and the total number of students pursuing pharmaceutical courses.

2. How do the education and the professional and social position of pharmacists compare with those of other professions.

3. What legislation, if any, is at present most needed for the advancement of the best interests of pharmacy?

4. To what extent is official supervision of drug stores necessary or beneficial?

SECTION III.—PHARMACOPŒIAL QUESTIONS.

1. The proper scope of a national pharmacopœia.

2. What improvements, if any, are desirable and practicable in pharmacopœial nomenclature? Is a nearer approach to international uniformity possible?

3. What would be an ideal pharmacopœia?

4. What progress has been made towards the preparation of an international pharmacopœia for potent remedies?

What action, if any, should be taken in reference to this subject?

5. Have the influence and co-operation of pharmacists increased in the work of pharmacopœial revision in the various countries? What proportion of the membership of the pharmacopœial revision committee or commission of your country consists of pharmacists?

6. Should any substance, the manufacture or sale of which is restricted by any patent, copyright or trade-mark, be admitted into any national pharmacopœia? If so, under what conditions?

7. What consideration should determine the introduction into the pharmacopœia of a new remedy, or the retention or rejection of one already in it?

SECTION IV,—GENERAL SECTION.

1. Upon what general plan can a systematic pharmaceutical nomenclature of the complex organic chemicals recently being introduced into the Materia Medica (such as antipyrine, etc.) be constructed?

2. In what directions may the pharmacist profitably extend his technical and professsional work to render him less dependent upon the purely mercantile part of his business?

Papers upon these and other subjects which may be presented and accepted will be referred to their appropriate sections.

"Look here," said an excited man to a druggist, "you gave me morphine for quinine this morning!"

"Is that so?" replied the druggist. "Then you owe me twenty-five cents."—*Providence Bulletin.*

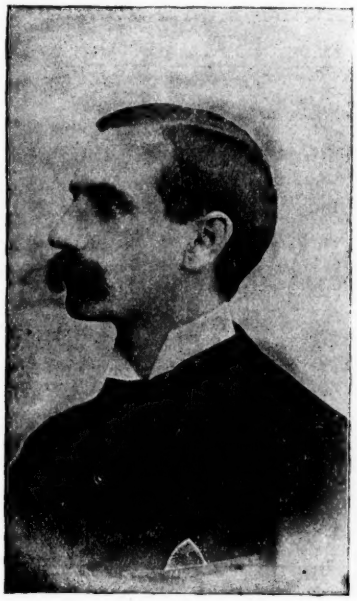
As with books so with journals, of their making there is no end. This well worn saying has received a new application in the appearance of another college journal in the west. The Chicago College of Pharmacy is responsible for *The Graduate*, a periodical conspicuous by the color of its cover, a disagreeable brick red.

W. B. HAY.

Winner of the $15 prize offered by the AMERICAN DRUGGIST AND PHARMACEUTICAL RECORD for the best design for placard illustrated last month, was born in Portland, Me., and received his education in the public schools of that city.

He went West in 1870, returned, and in 1882 entered the paint and wholesale drug department of H. H. Hay (his father's) store, where he has remained most of the time since.

Mr. Hay always had a fondness for lettering and drawing, but never received any instructions in



W. B. HAY.

either. At ten years of age his teacher in the primary school gave him a half-holiday as a reward for lettering the names of the scholars in the spaces allotted for each one's use on the blackboard.

In 1886 Mr. Hay commenced to make occasional window signs for the retail store. They were somewhat crude, but in a year by careful observation of the various styles of types used in magazine and newspaper ads. he had learned several alphabets that were especially useful in the class of work he had to do, and was soon able to do all his lettering offhand.

He had never give more than spare moments to this work, had often gone many weeks without touching a brush, hence the progress made was slow. Of late years the work has been more constant. As their retail store has a window frontage of some 45 feet and the displays are changed every week, a large number of cards and designs are needed. Many of these are soiled or torn in one display and when the same goods are again placed on exhibition new cards must be made.

During the past four months he made more than 150 cards and signs varying in size from 3x5 inches to 22x28 inches. Most of these have been made on heavy porcelain board with asphaltum varnish, while some were made on brown board with white paint or gold bronze lettering.

He also makes a great many pen and ink labels for show bottles, cigar cards, etc.

Association Meetings.

DELAWARE SOCIETY.

The seventh annual meeting of the Delaware Pharmaceutical Society was held at No. 101 East Ninth street, Wilmington, on May 4. President N. B. Danforth presided, and at the morning session dellvered his annual address.

The following were elected members of the society: E. W. Jester, Seventh and Jackson streets; Arthur J. Barrett, Eighth and Spruce; A. G. Munson, Eleventh and Orange, Wilmington.

F. R. Smith notified the society that his term of membership in the State board of pharmacy had expired, but as he did not desire to be reappointed the following names were sent to the governor for him to select one for appointment: E. Hoffman, J. Ferris Belt, Joseph P. Williams, Thomas Donaldson, J. Harvey Spruance, Owen C. Spear. It was decided to hold the next annual meeting in Wilmington.

The following officers were elected for the ensuing year: President, N. B. Danforth; vice-presidents, J. B. Butler, M.D., F. A. Shipley, Clarence D. Sypherd; treasurer, John J. Gallagher; secretary, John M. Harvey; executive committee, J. W. Fenn, William Poole, T. B. Tatnall.

FLORIDA ASSOCIATION.

The annual meeting of the Florida Pharmaceutical Association was convened in the parlors of the Tremont Hotel, Jacksonville, at 10.30 A.M., Wednesday, May 10, by President N. Wooldridge.

Mayor Robinson welcomed the members to the hospitalities of the city and was happily responded to by H. C. Cushman, of Pensacola.

T. S. Chalker, the third vice-president, taking the chair, President Wooldridge read his address, which was referred to a committee consisting of H. C. Grove, A. E. Phillips and H. C. Cushman for consideration.

The following were elected to membership:

T. S. Anderson, Branford; Fred C. Chase, Jacksonville; Malcolm G. Macdonald, R. E. Norman, Green Cove Springs; Leslie Niblack, Roscoe Niblack, Lake City; J. F. W. King, Gainesville; J. N. Taylor, Cedar Keys; J. N. Willis, Williston; L. S. Morrison, New Smyrna; W. D. Ball, Orange Park; W. B. Davis, Madison; W. S. Harris, Tampa; R. B. Mitchell, E. W. Harrison, Ocala; L. R. Phillips, Sanford; E. M. Delgado, Jacksonville.

The reports of Secretary Lightstone, of Jacksonville, of Treasurer Ed. Delouert, of Ocala, and of S. P. Watson, delegate to the meeting of the American Pharmaceutical Association, were presented and adopted.

The chair appointed A. E. Phillips, H. C. Cushman and W. I. Woodman as a necrological committee to draft suitable resolutions upon the deaths of members.

The treasurer read a list of those who were behind in their dues to the association for periods of three and more years, and it was resolved to drop from the rolls all whose arrears were for more than three years.

Reports were made by those who had tried the cultivation of camphor trees on Florida soil, and the success which has been met with proved very encouraging. The president was requested to procure from the agricultural department at Washington a sufficient number of plants to be distributed among those who wish to try the experiment of growing them.

The first business transacted at the second day's sessions was the indorsement of the Interstate League, R. J. Martinez being appointed a committee of one to endeavor to secure the coöperation of the druggists with the league.

After a spirited debate upon the piratical and dishonest mode of doing business by the creature commonly called the "cutter," the Association endorsed the platform of the Interstate Retail Druggists' League, and the following pledge was formulated and signed by every member present:

We, the undersigned druggists of Florida, hereby pledge ourselves not to purchase any goods from any jobbing or manufacturing house, after the first day of July, 1893, which has not previously filed with Mr. R. J. Martinez, Chairman of Committee on Cut-rate Nuisance, a promise not to sell any of their goods to any persistent and uncompromising cutter of prices doing business in this State.

The Secretary was instructed to drop all names of members whose arrears exceed three years' dues.

The reports of several committees were submitted and adopted.

H. C. Cushman, of Pensacola, and A. E. Phillips of Sanford, read papers on substitution which was followed by one by Dr. Palmer on *hieracium venenosum*, our indigenuous plant popularly known as "rattlesnake's master," the root of which is reputed to act as an antidote to the poison of all kinds of venomous reptiles and insects.

Then followed the election of the officers and committees to serve for the term, 1893-'94, as below:

President, T. S. Chalker, of Lake City; Vice-Presidents, W. I. Woodman, of St. Augustine; George Hughes, of Jacksonville; and C. C. Harris, of Tampa; Secretary, W. H. Lightstone, of Jacksonville; Treasurer, Ed. Delouest, of Ocala; Local Secretary, S. B. Leonardi, of Tampa.

Executive Committee.—Thos. Clark, and R. I. Martinez, of Jacksonville, and Andrew Jolly, of Waldo.

Legislative Committee.—W. A. Rawls, of Tallahassee; A. E. Philips of Sanford; H. Robinson, and C. C. Bettes, of Jacksonville; and H. C. Cushman, of Pensacola.

Papers and Queries.—J. D. Palmer, of Monticello; G. W. Williams, William Aird, and W. W. Tucker, of Jacksonville; and C. S. Lowry, of Plant City.

Trade Interests.—L. S. Smith, of St. Augustine; W. H. Mook, H. L. Irwin, J. E. Kirk, and C. D. Horne, of Jacksonville.

Delegates to the American Pharmaceutical Association and International Congress of Pharmacists, Chicago: S. P. Watson, of Atlanta; W. A. Rawls, of Tallahassee; C. C. Harris, Tampa; H. C. Cushman, of Pensacola; Ed. Delouest, of Ocala; H. C. Groves, of Ocala; A. E. Philips, of Sanford; and N. Wooldridge and A. P. Fries, of Jacksonville. Alternates, Wm. Fairlie, A. J. Conover, E. K. Norwood, and J. L. Romero, of Jacksonville; and W. B. Davis, of Madison.

Tampa was selected as the place, and the third Wednesday in May, 1894, as the date for the holding the next annual meeting.

ALABAMA PHARMACEUTICAL ASSOCIATION.

The twelfth annual session of this association convened at Birmingham, Ala., on Tuesday, May 9, with M. F. Tucker, president, in the chair. After the reports of the various officers had been presented and passed upon, papers on pharmaceutical subjects were read by P. C. Candidus, A. B. Parker, W. M. Stone and G. B. McVay. Mr. Candidus' paper was on "The Druggist and Physician." "The management of a Retail Store," formed the subject of Mr. Parker's paper and Mr. Stone dwelt on the growing evil of the morphine habit, and advised legislation on the subject. Mr. McVay's paper touched upon the history of the Alabama Pharmaceutical Association. He brought out the subject of cut-rates in patent medicines, and told of methods whereby pharmacists engaged in a legitimate business might protect themselves.

The election of officers was taken up on Wednesday, with the following result: President, E. P. Galt, Selma; Vice-Presidents, A, E. Brown, W. Hughes; Secretary, P. C. Candidus, Mobile; Treasurer, E. B. Norton; Executive Committee, M. F. Tucker, W. F. Punch, and W. E. Bingham.

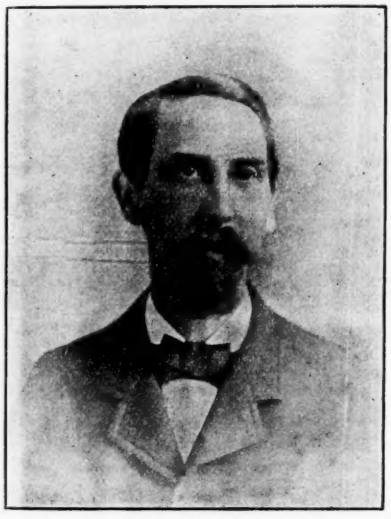
Several interesting papers on various topics of interest to the association were read and discussed, after which delegates to the forthcoming meeting of the A. P. A. were elected as follows; W. A. Collier, E. B. Norton, P. C. Candidus, L. Gedden and T. C. Wikle.

After disposing of routine business, the association adjourned to meet next year at Anniston, on the second Tuesday in May.

GEO. W. COBB.

George W. Cobb is known to the trade as a successfulbusiness man, and a diligent and conscientious worker in the interest of his fellow pharmacists.

Mr. Cobb was born in Warren, Maine, in 1840, and moved to Boston fifteen years later, became connected with a retail drug store, and has been in the business in Boston and vicinity since that date. Since engaging in business in East Boston, he has fitted up no less than four different stores, three or which he has disposed of, and he is now proprietor



GEO. W. COBB.

of one of the best prescription stores in that section of the city. This store is at the corner of Saratoga and Brooks streets and was established in 1866. He also owned a store in Brookline for a number of years, but sold it a short time ago.

For the past ten years he has been known as a hard worker in all trade matters and association affairs, and fortunate is the committee which has him for a member.

Mr. Cobb, with others, founded the Apothecaries' Guild of Boston and vicinity, and he is the first treasurer of that body. He has recently visited the cities of Worcester and Lowell, and has, at these places, organized flourishing branches—of 50 members each—of the Interstate League.

He joined the M. S. P. A. early in its career and was at one time its first vice-president, and refused to have his name used for the presidency. He is now a member of the Association's legislative committee, and he is very much interested in the bill before the legislature which is an amendment to the pharmacy law.

He was chairman of the committee which made the "Hood plan" such a success in Boston; and he is not afraid to express his opinions upon all subjects pertaining to the trade.

He is president of the East Boston Druggists' Association, is a prominent member and director of the Boston Druggists' Association and of the Pine Tree Club of Boston.

For the past twenty years he has resided in that "Garden City" of the Hub, Newton Center.

THE TEXAS ASSOCIATION.

The fourteenth annual convention of the Pharmaceutical association of Texas met at the Oak Cliff opera house, Dallas, at 2 P.M. on May 9.

James T. Hazlett, of Dallas, introduced ex-Mayor Frank Oliver of Oak Cliff. That gentleman made a most felicitous address of welcome.

The response was by President J. Burgheim of Houston, who thanked the ex-mayor for his words of welcome on behalf of his associates.

The president then read his annual address, which shows that the association is constantly increasing in membership, its treasury in a healthy condition and all in all, compares favorably with similar organizations in the older States. He urged all pharmacists to unite with the association.

The following officers were then elected for the ensuing year.

President, L. Myers Connor, Vice-Presidents, W. P. Long, J. M. Pace, Jr., E. Glover; Secretary, Geo. W. Heyer, Houston; Treasurer, W. F. Shook; Trustee, W. H. Roberts, Jr.

The local committee of arrangements was made up of James L. Hazlett as chairman; Richard Schweickardt, H. L. Carleton, Dr. J. M. Pace, Jr., L. Myers Connor, J. E. Bumpas and G. Eisenlohr. A full orchestra furnished music, and lunch was served in the refreshment department of the pavilion. After adjournment, a visit was paid to the lake, and boating, bathing, etc., was indulged in. Among those present at the opening were:

James L. Hazlett, J. M. Pace, Jr., J. M. James L. Myers Connor, F. J. G. Zethroeus, W. E. Grenier, George L. McKinstrey, of Sherman; J. M. Nearthey, of Van Alstyne; G. Eisenlohr, H. L. Carlton and W. F. Shook, of Dallas; Geo. W. Heyer, of Houston; E. Reuss, of San Antonio; W. C. Johnston, of Dallas; John C. Shook, of Detroit; W. H. Robert, Jr., of Denison; H. J. Bass, of Abline; J. M. Brook, of Clifton; T. J. Evens, of Zephyr; J. A. Wellington, of Baltimore; F. N. Oliver, of Oak Cliff; P. H. Dean, of Austin, and S. P. Bass, of Houston.

The Association assembled at 9.30 A.M., on Thursday, with L. Myers Connor, President, in the chair.

Papers were read by H. L. Brooks, R. Bingham, and G. Eisenlohr, for which the authors were awarded thanks.

The following addition to the by-laws was adopted at the afternoon session:

It shall be the duty of the president to appoint one representative to the American Pharmaceutical Association at every annual meeting, the cost not to exceed $100 and be paid by the Texas Pharmaceutical Association. He is also authorized to appoint at the same time other delegates to other representative bodies, whose expenses shall be borne either by themselves or the association, as shall be decided by a vote.

Suitable resolutions deploring the deaths of M. F. Kalteyer, of San Antonio, B. Morris, of Fort Worth, and F. Weichrel, of Dallas, during the past year, were presented and passed.

A committee to confer with the regents of the State University in regard to the endowment of a chair of pharmacy, was appointed as follows: J. L. Cunningham, Robert Potter, John Wellington, after which the report of the Committee on the Distribution of Prizes was submitted and, awards made as follows: Gold badge, No. 1 M. P. Long; gold badge, No. 2, J. N. Brooks; life-membership, H. L. Carlton; $25 prize, H. L. Carlton; valuable book, F. T. G. Zetherous.

The following druggists were elected to membership in the association: J. M. Riviers, of Waco; S. F. Bainer, of Pilot Point; and E. J. Bruck, of Grapevine.

At 3 o'clock the members of the association and the ladies repaired to the Oak Cliff college, where Professor Edgarton and his scholars had arranged a musical and literary feast that was thoroughly appreciated. Several speeches were made, light refreshments served and then the delegates returned to the pavilion.

Austin was selected as the next place of meeting, and the second Tuesday in May, 1894, the date. H. S. Carlton was elected local secretary.

Prizes offered for next year—First, by Meyer Bros. Drug company; second, $25, by Behrens Drug company, Waco; third, gold badge, by Schweichardt & Delorenzi.

The committees were then appointed the following:

Medical conference committee—J. Burgheim, R. Schweickardt and E. Reuss.
Adulteration—W. T. Shook, E. Dress, W. B. Morrison, R. Bingham, R. Walker, W. R. Meville.
Legislation—H. L. Carlton, W. A. Williamson, E. H. Cooper, H. J. Boss.
National formulary—G. H. Kalteyer, E. Jacobs, J. Cumming.

After adopting the usual votes of thanks to local pharmacists, people of Dallas and Oak Cliff and the press, the association adjourned.

A heavy rainstorm set in in the afternoon and interfered with the out-door program of sports.

MISSISSIPPI ASSOCIATION.

The Mississippi Pharmaceutical Association met at Jackson, May 9. Among those present were: Messrs. Mosby, of Jackson; Schottell, of Gloster; Holt, of Terry; West, of Natchez; Lowry, of Jackson; Folks, of Jackson; A. L. Harper, of Wesson; Matthews, of Lexington; Hughes, of Grenada; Lillybecke, of Meridian; Kendall, of Meridian; Small, of Winona; Harvey, of Kosciusko; Rekford, of Aberdeen; McBride, of Carrollton; Harrington, of Vicksburg; Lazaro, of Magnolia; Hough, of Magnolia; Edsland, of Forrest; Barnes, of Brandon; Damper, of Crystal Springs; Ward, of Ellisville, and Spickard, Ledbetter, Rodgers, Hughes, White and George Moore, of Jackson.

The proceedings were opened with prayer by Rev. Dr. T. C. Williams, rector of St. Andrew's Church. The constitution reported by the committee at the last meeting was amended and adopted. The salary of the secretary was fixed at $50 per annum. The following amendments to the by-laws we readopted: "We discountenance all secret formulas between physician and pharmacist." "In justice to physicians, we will discourage the use of all proprietary medicines."

A committee was appointed to prepare a petition and to obtain the signatures thereto, asking the legislature to pass a law giving pharmacists the right to sell whiskey and alcohol for medical and mechanical purposes without a saloon license. This elicited considerable discussion and all the speakers heartily favored the scheme, and that public sentiment would indorse and insure its success.

The committee on legislation were directed to endeavor to get the Legislature to repeal what is known as the "morphine law," which makes it an indictable offense for druggists who sell anything in which morphine or opium in any form enters without a physician's prescription.

The following officers were elected for the ensuing year: President H. F. West, Natchez; first vice-president, J. W. Eckford, Aberdeen; second vice-president, N. C. Mosby, Jackson; secretary, Carson Lemly, Jackson; treasurer, O. Lillybrek, Meridian. Eighty-five new members were added to the roll.

WASHINGTON PHARMACEUTICAL ASSOCIATION.

The pharmacists of Washington convened in annual session in Spokane on Monday, May 8, President A. B. Stewart, of Seattle, occupying the chair. In his annual address the president dwelt on the organization of the Association at Olympia, three years ago. He referred to the need of a College of Pharmacy in Washington, and said the regents of the State University who have power to establish a chair in pharmacy would no doubt assist in any movement looking to the establishment of Pharmacy Department.

Reports of the secretary and treasurer were then read and indicated that the association had made good progress and is now in fine condition.

At the business session on Tuesday, officers for the coming year were elected as follows: President, A. W. Doland; Vice-presidents, J. H. Day, David Wall, and Lot Wilbur; Secretary, Walter St. John, Tacoma; Treasurer, Jas. Lee; Executive Committee, E. E. Ellsworth, S. O. Harmon, A. B. Stewart, H. Dubbs, Theron Stafford, U. G. Wynkoop, W. P. Bonney, G. G. Essig, and W. H. Chapman.

The selection of five names to be sent to the governor, from which he will select one to fill a vacancy on the State board of pharmacy, was then taken up. The names selected were those of A. W. Stewart, of Tacoma; C.G. Snyder, of Davenport; D.O. Woodworth, of Ellensburgh; L. D. P. Collins, of Whatcom; and J. H. Day of Dayton.

Before adjournment it was decided to hold the meeting next year in Tacoma, on May 15, 16, 17.

THE ASSOCIATION BANQUET.

The members of the Association came together again at a banquet at the Hotel Spokane. A.W. McMorran was toast-master. The Washington Pharmaceutical Association received the first honors, and the retiring president, A. B. Stewart, responded in a graceful speech. Then Lloyd Cochran told the private opinion of "Dick the Apprentice" and J. E. Everhart set the table in a roar with his prescription for "A dull day." W. H. T. Barnes answered for the State board of pharmacy in a short and well delivered speech, and George Stewart told what the honorary members from Idaho think about their Washington brothers. The festivities were kept until the "wee sma' hours," and speeches were made by many of the guests present.

THE HOUSTON (TEX.) ASSOCIATION held their annual meeting recently and elected the following officers for the ensuing year: G.W. Gaines, president; J. Burgheim, vice-president; R. F. George, treasurer; J. S. Wilson, secretary. Directors—J. Burgheim, J. S. Wilson, R. F. George, J. L. Cunningham, A. E. Schaeffer, G. W. Heyer, F. D. Mayo. At a later meeting a change in the pharmacy law was proposed and discussed. The law as it now stands applies to towns of over 1,000 inhabitants, requiring dealers in drugs in them to be or to employ experts in handling the drugs. There is an effort now being made to require all dealers or compounders to have diplomas or to stand an examination as to their fitness for the responsible duties before they can engage in the business. The meeting instructed Mr. Ross, their delegate to the State convention, to advocate the proposed improvement, and to do all in his power to get the convention to ask for the proposed change in the law, and to use his best efforts to get the legislature to make such a law.

KINGS COUNTY (N. Y.) SOCIETY.—The following officers and delegates were elected at the meeting of the Society:

President, Albert H. Brundage, Ph.G., M.D.; first vice-president Walter B. Averre; second vice-president, Frederick H. Pamphilon, Ph.G.; third vice-president, Levi D. Sheets, M.D.; secretary, Flavel N. Bliss; treasurer, Peter W. Ray, M.D.; trustees, three years, Rudolf C. Werner, Ph.G.; Edward Alt, John Pfeiffer, Ph.G.; trustee, one year, Luther F. Stevens, Ph.G.

Censors—Lithgow T. Perkins, James B. Newton, Ph.G., and Carl L. Trites,

Delegates to the meeting of the American Pharmaceutical Association at Chicago, Aug. 14, 1893; Rudolph C. Werner, Ph G.; Albert H. Brundage Ph.G, M.D.; William P. De Forest, Frederick H. Pamphilon, Ph.G., and John Pfeiffer, Ph.G.

WORCESTER (MASS.) ASSOCIATION.—Henry Canning, Charles Wert, A. H. Smith, W. F. Sawyer and F. A. Davidson, of Boston, and Irving Smith, of Providence, George W. Cobb, of East Boston, were the guests of this six months old association on May 10. The following were among those in attendance:

Francis M. Harris, D. B. Williams, W. S. Flint, E. G. Green, J. F. Guerin, W. A. Volkmar, W. L. Davis, Victor J. Bergwall, F. E. Collins, R. C. Ware, W. H. Willard, M. F. Casey, Richard Higman, A. C. Woodward, W. W. Robbins, C.J. Foley, F. N. Oxley, W. H. Early, George E. Fairbanks, E. V. Bouchard, P. B. Moriarty, G. M. Tourtellotte, Odell Boynton, E. A. Mellish, W. R. Scott, G. K. Mellor, F. E. Beal, A. W. Andrews, W. A. Brown, W. S. Doane, C. C. Stewart, E. A. Brewer, W. E. Doran, E. J. Churchill, S. F. Chase, E. J. Fitzgibbon, F. H. Tenney.

DELAWARE COUNTY (PA.) ASSOCIATION.—The first annual dinner of this association was given in Chester, on May 10. The affair was a delightful one and reflected credit on W. H. Farley, F. E. E. Hudson and Andrew Buchanan, the committee who had it in charge. The officers of the society are: President, J. M. Stoever; vice-president, Robert Howarth; secretary, W. H. Farley; treasurer, J. C. Kepner.

KANSAS ASSOCIATION.—The first session will be called to order in the city hall, Wichita, on May 23, at 10 A.M. An elaborate and interesting programme has been arranged.

THE NEW YORK ASSOCIATION.—The fifteenth annual meeting of the New York State Pharmaceutical Association will be held at the New Kent House, Lakewood-on-Chautauqua, beginning on Tuesday, June 27, and continuing during Wednesday and Thursday. Ample arrangements will be made for exhibits, and special rates at the hotel have been made for the members and their friends. Lakewood is one of the most charming of the many delightful summer resorts on Lake Chautauqua, the hotel is large and elegant, and the entertainment committee are planning a most enjoyable time for all who shall attend.

New Building of Tarrant & Co.

Most of our readers are probably aware that in the Summer of last year the old buildings on the corner of Warren and Greenwich streets, this city, which for more than half a century had been occupied by Messrs. Tarrant & Co., wholesale druggists, were partially destroyed by fire. The necessities of increasing business demanding larger premises, the firm decided not to repair the damaged structures, but to erect a building which would afford the desired facilities.

That this resolution was immediately carried into effect is evinced by the handsome structure designed by the well-known architect Mr. Henry Rutgers Marshall, which has been erected in the incredibly short space of four months.

Their new warehouse is built of brick with terra-cotta trimmings and is seven stories high.

It is of an approved slow-burning construction, the floors being supported independently of the walls by iron columns which are protected with hollow brick. On all sides, extending under the sidewalks, are spacious vaults, and under the Warren street sidewalk are located the boilers, which will supply steam for heating and for driving the large steam engine and dynamo to be used for lighting and power purposes. The building is also furnished with steam and electric elevators of the latest and most approved design, and with every other modern convenience. All machinery used in the laboratory will be run by electric power. The style of architecture adopted is one designed to furnish the best of light and ventilation.

The first or ground floor will be partly occupied by the shipping and receiving departments, and partly used for the storage of proprietary medicines in original packages. On the familiar Greenwich street corner will be the cash sales department. The entire second floor will be devoted to the requirements of the office and salesroom of the drug and druggists' sundries departments. The third and fourth floors will be used by the jobbing drug department, and the fifth, sixth and seventh floors for storage and manufacturing purposes.

As can be easily understood, Messrs. Tarrant & Co. are now in an enviable position for supplying the requirements of their trade and are to be congratulated upon the possession of a building which is not only an ornament to the locality, but that is in every respect a "model" structure.

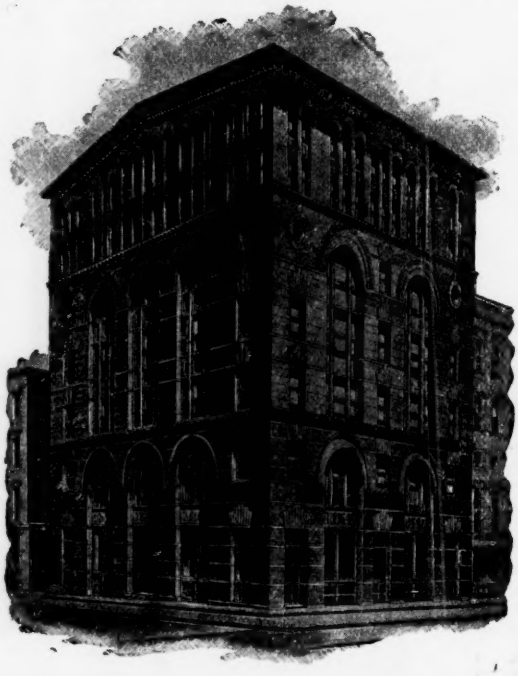
"Are you troubled with low spirits?" asks a patent medicine advertiser. "Not at all," says Col. Soaks, "15 cents—same old price."

Dr. Albert Welles of Frankfort and Dr. Oswald Hesse of Feuerbach, have become associated with Zimmer & Co. of Germany, and the concern has been reorganized as a limited liabilities company, under the title Vereinigte Chininfabriken Zimmer & Co., Gessellschaft mit beschränkter Haftung.

London Letter.

(From Our Own Correspondent.)

In London we have just experienced a mild sensation in witnessing the result of an attempt to establish a Chemists' and Druggists' Exhibition. It is probably a sad reproach against us that we have hitherto managed to struggle along without such an institution, although when fitting opportunity occurs our trade usually manages to effect an entrance into allied exhibitions. But the particular exhibition which I propose to describe was intended to be by chemists and for chemists, and unlike the generality of these affairs was not proposed as a public show. With no little boldness the Royal Agricultural Hall, at Islington, was chosen as the scene, and although the eighty exhibitors did their best



TARRANT & CO.'S NEW BUILDING.

to cover the vast floor, it was painfully apparent that they were swamped by their surroundings. One bold exhibitor to whom I confided this opinion said that he believed it would have been more successful had Olympia—the great Kensington show ground—been taken. Upon my suggesting that a microscope would have been required to find them, he explained that the newer attractions of that place would have induced the public to come in their thousands, while chemists had failed to appear in even their hundreds.

Considering, however, that this was the first exhibition of its kind, and that a good deal of skepticism about its ever reaching maturity had to be met and converted I am inclined to think that the start is not, after all, so bad. There is no doubt that if the majority of the present exhibitors are satisfied, as they nearly all professed to be, with the inquiries and business that resulted, their number next year will be considerably augmented. With regard to the character of the exhibition, it must be admitted that startling novelties, in the way of decorations, were conspicuous by their absence. The wholesale druggists were also quite unrepresented, the majority of the exhibitors indeed belonging to what was in courtesy but inaccurately described as allied trades. Three exhibits alone stand out as original in design and ornate in execution. Bush & Co., of Artillery lane, London, have a good representation of a Messina villa, and inside is a fine display of essential oils, fruit essences, etc. Crawshaw & Co., of Fann street, Aldersgate street, E. C., have also erected an edifice with glass sides and handsome carved front in which to display their "crystal" dyes, gold paint, butter coloring, etc. While Cresswell Bros. and Schmitz have a perfect arbor of sponges, ranging from the tiny Turkey cup to the gigantic Egyptian bath sponge

Among the manufacturing chemists Burroughs, Wellcome & Co. have a good assortment of their specialties—compressed goods, Fairchild's enzymes, Wyeth's dialyzed iron, etc. Allen & Hanbury show similar articles in a solid case surrounded with a neat counter. Their "hypoderms" are patented and consist of compressed hypodermic disks containing the acid salt of the alkaloid with a small quantity of bicarbonate of sodium. Thomas Christy, of Lime street, E. C., exhibits a number of novelties. The new rival to lanoline, which claims superiority to that superior article, is as unlike it in appearance as possible. It is of petrolatum color and consistence, but absorbs with ease a large amount of fluid and then resembles lanoline more closely. For some time the preparations of *cactus grandiflora* have been at famine prices, but Mr. Christy has a good supply of flowers, stalks preserved in alcohol tincture, fluid extracts, etc.

Fletcher, Fletcher & Stevenson have an attractive show of their celebrated liquors, by which they prove that the pharmacopœial exhaustion is a wasteful process and that an economy of menstruum with the maximum of extraction is possible in nearly every tincture-process. Thos. Tyrer and Co., of Stratford, E., are the sole representatives of the wholesale chemical manufacturers and a moderate display of fine chemicals in a square case is their monument. Among the other exhibits is the Jordan Tablet Machine, the surgical instruments of J. Ellwood Lee Company, of Conshohocken, Pa., and the dyes of Wells and Richardson Co., which hail from your side of the Atlantic. With regard to the exhibit of the Radam Microbe-Killer Co., the *Chemist and Druggist* neatly remarks: "Their pamphlet bears a picture of the redoubtable William Radam himself, with a bottle of the 'Killer' and a microscope, looking as if he had just emptied the contents of the one and did not quite know what to do with the other." Those who followed the recent libel action will appreciate the last part of the paragraph as distinctly good. Soaps, perfumes, mineral waters, disinfectants, glass bottles, homœopathic and Mattei medicines, infants' foods, filters, etc., fill in the remainder of the exhibition.